


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐**APPLICATION FOR PERMIT TO DRILL**

2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>				1. WELL NAME and NUMBER NBU 1022-2J1T		
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO				3. FIELD OR WILDCAT NATURAL BUTTES		
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.				5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES		
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217				7. OPERATOR PHONE 720 929-6587		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ST ML 22651		11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		9. OPERATOR E-MAIL mary.mondragon@anadarko.com		
13. NAME OF SURFACE OWNER (if box 12 = 'fee')				12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')				14. SURFACE OWNER PHONE (if box 12 = 'fee')		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		
20. LOCATION OF WELL		FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE
LOCATION AT SURFACE		2370 FSL 1630 FEL	NWSE	2	10.0 S	22.0 E
Top of Uppermost Producing Zone		2370 FSL 1630 FEL	NWSE	2	10.0 S	22.0 E
At Total Depth		2370 FSL 1630 FEL	NWSE	2	10.0 S	22.0 E
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 1630		23. NUMBER OF ACRES IN DRILLING UNIT 620		
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 20		26. PROPOSED DEPTH MD: 8500 TVD:		
27. ELEVATION - GROUND LEVEL 5040		28. BOND NUMBER 22013542		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		

ATTACHMENTS**VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES**

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP
NAME Kevin McIntyre	TITLE Regulatory Analyst I
SIGNATURE	PHONE 720 929-6226
	DATE 02/02/2009
	EMAIL Kevin.McIntyre@anadarko.com
API NUMBER ASSIGNED 43047502190000	APPROVAL  Permit Manager

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	1900		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	1900	36.0			
	Cement Interval	Top (MD)	Bottom (MD)			
		0	1900			
		Cement Description	Class	Sacks	Yield	Weight
			Premium Foamed Cement	265	1.18	15.6

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	8500		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	8500	11.6			
	Cement Interval	Top (MD)	Bottom (MD)			
		0	8500			
		Cement Description	Class	Sacks	Yield	Weight
			Premium Lite High Strength	400	3.38	11.0
			Pozzuolanic Cement	1360	1.31	14.3



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	January 20, 2009		
WELL NAME	NBU 1022-2J1T	TD	8,500'	MD/TVD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
ELEVATION	5,040'	GL	KB	5,055'	
SURFACE LOCATION	NWSE 2370' FSL & 1630' FEL, SEC. 2, T10S, R22E			BHL	Straight Hole
	Latitude:	39.977236	Longitude:	-109.402806	NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (MINERALS & SURFACE), BLM, Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist
Catch water sample, if possible, from 0 to	4,159'				
	Green River @	1,084'			
	Top of Birds Nest Water @	1364'			
	Mahogany @	1,875'			
	Preset f/ GL @				
	1,900' MD				
Note: 12.25" surface hole will usually be drilled ±400' below the bottom of lost circulation zone. Drilled depth may be ±200' of the estimated set depth depending on the actual depth of the loss zone.					
Mud logging program TBD					Water/Fresh
Open hole logging program f/ TD - surf csg			7-7/8"	4-1/2", 11.6#, I-80 or equivalent LTC casing	Water Mud
	Wasatch @	4,159'			8.3-10.0 ppg
	Mverde @	6,479'			
	MVU2 @	7,338'			
	MVL1 @	7,941'			
	TD @	8,500'			Max anticipated Mud required 12.0 ppg





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3520	2020	453000
SURFACE	9-5/8"	0 to 1900	36.00	J-55	LTC	1.03	2.27	8.43
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 8500	11.60	I-80	LTC	2.27	1.20	2.34

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)
- (Burst Assumptions: TD = 12.0 ppg) .22 psi/ft = gradient for partially evac wellbore
- (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
- MASP 3400 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
			+ .25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,650'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	400	60%	11.00	3.38
	TAIL	4,850'	50/50 Poz/G + 10% salt + 2% gel	1360	60%	14.30	1.31
			+ .1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Brad Laney

DATE:

DRILLING SUPERINTENDENT:

Randy Bayne NBU 1022-2J1T.xls

DATE:

**NBU 1022-2J1T
NWSE Sec. 2, T10S,R22E
UINTAH COUNTY, UTAH
ST ML 22651**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1084'
Birds Nest	1364'
Mahogany	1875'
Wasatch	4159'
Mesaverde	6479'
MVU2	7338'
MVL1	7941'
TD	8500'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1084'
Water	Birds Nest	1364'
Water	Mahogany	1875'
Gas	Wasatch	4159'
Gas	Mesaverde	6479'
Gas	MVU2	7338'
Gas	MVL1	7941'
Water	N/A	
Other Minerals	N/A	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 8500' TD, approximately equals 5270 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3400 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet.

The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing.

The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is

not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately

60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

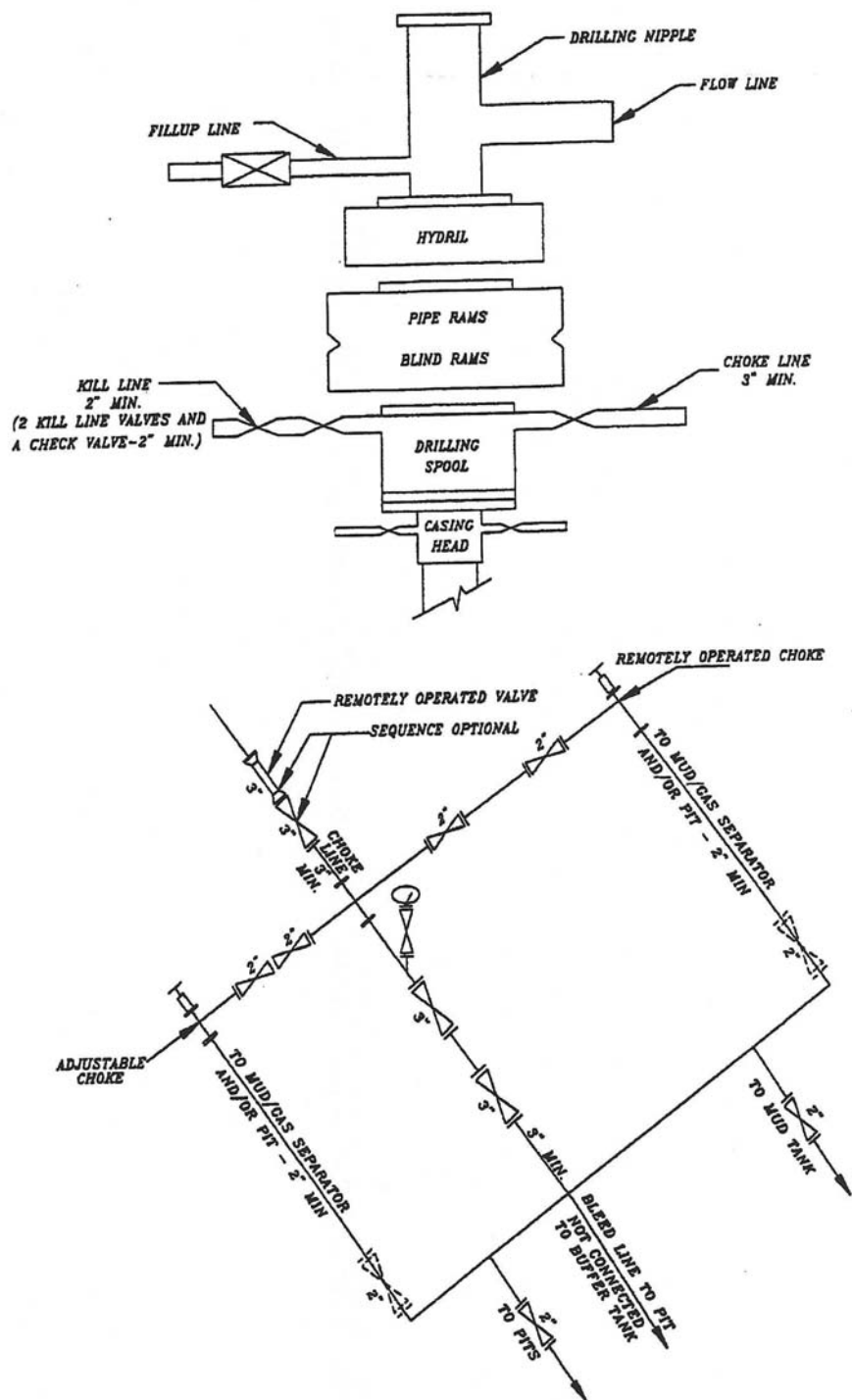
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

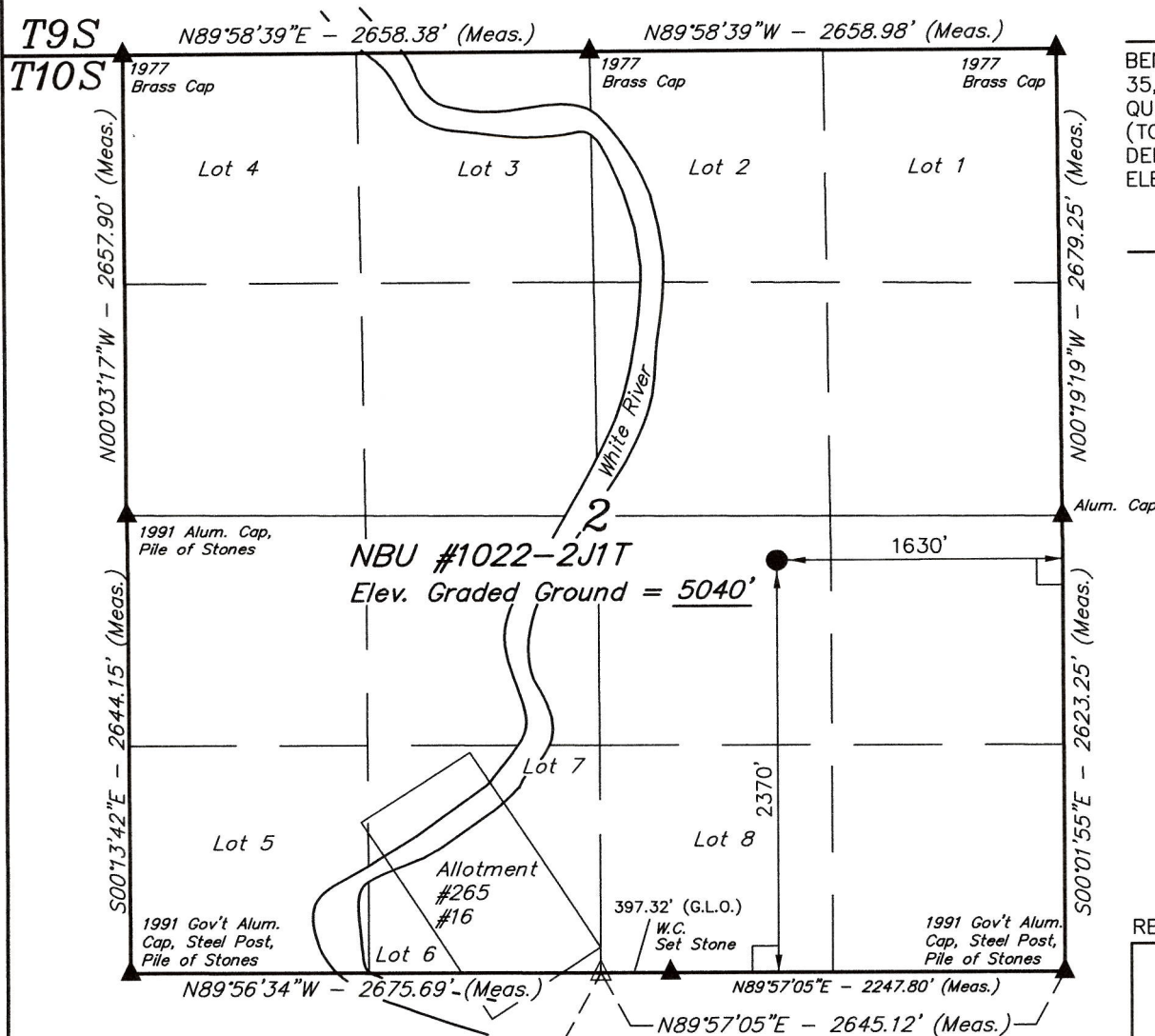
NBU 1022-2J1T

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

T10S, R22E, S.L.B.&M.



LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

Kerr-McGee Oil & Gas Onshore LP

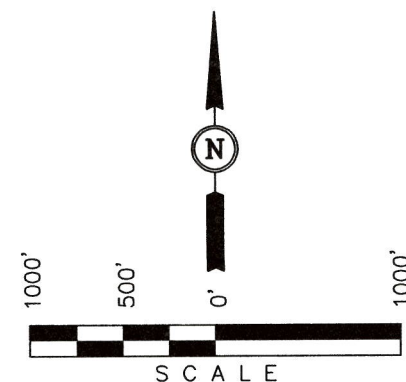
Well location, NBU #1022-2J1T, located as shown in NW 1/4 SE 1/4, of Section 2, T10S, R22E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

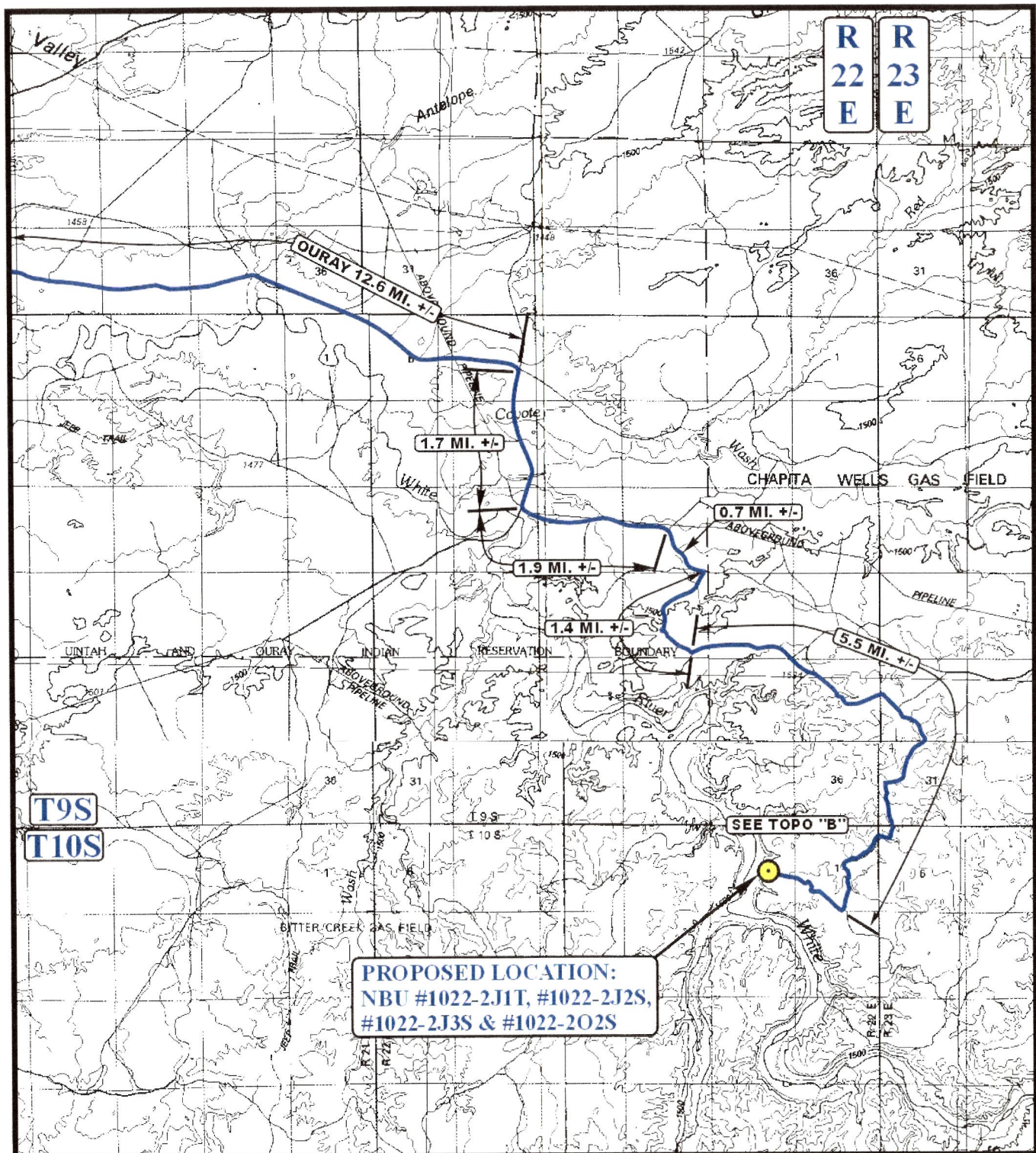
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH

REVISED: 08-26-08 C.C.

UINTAH ENGINEERING & LAND SURVEYING
 85 SOUTH 200 EAST - VERNAL, UTAH 84078
 (435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 06-17-08	DATE DRAWN: 07-08-08
PARTY L.K. D.D. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr-McGee Oil & Gas Onshore LP	



LEGEND:

● PROPOSED LOCATION



Kerr-McGee Oil & Gas Onshore LP

NBU #1022-2J1T, #1022-2J2S, #1022-2J3S & #1022-2O2S
SECTION 2, T10S, R22E, S.L.B.&M.
NW 1/4 SE 1/4



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85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC
MAP

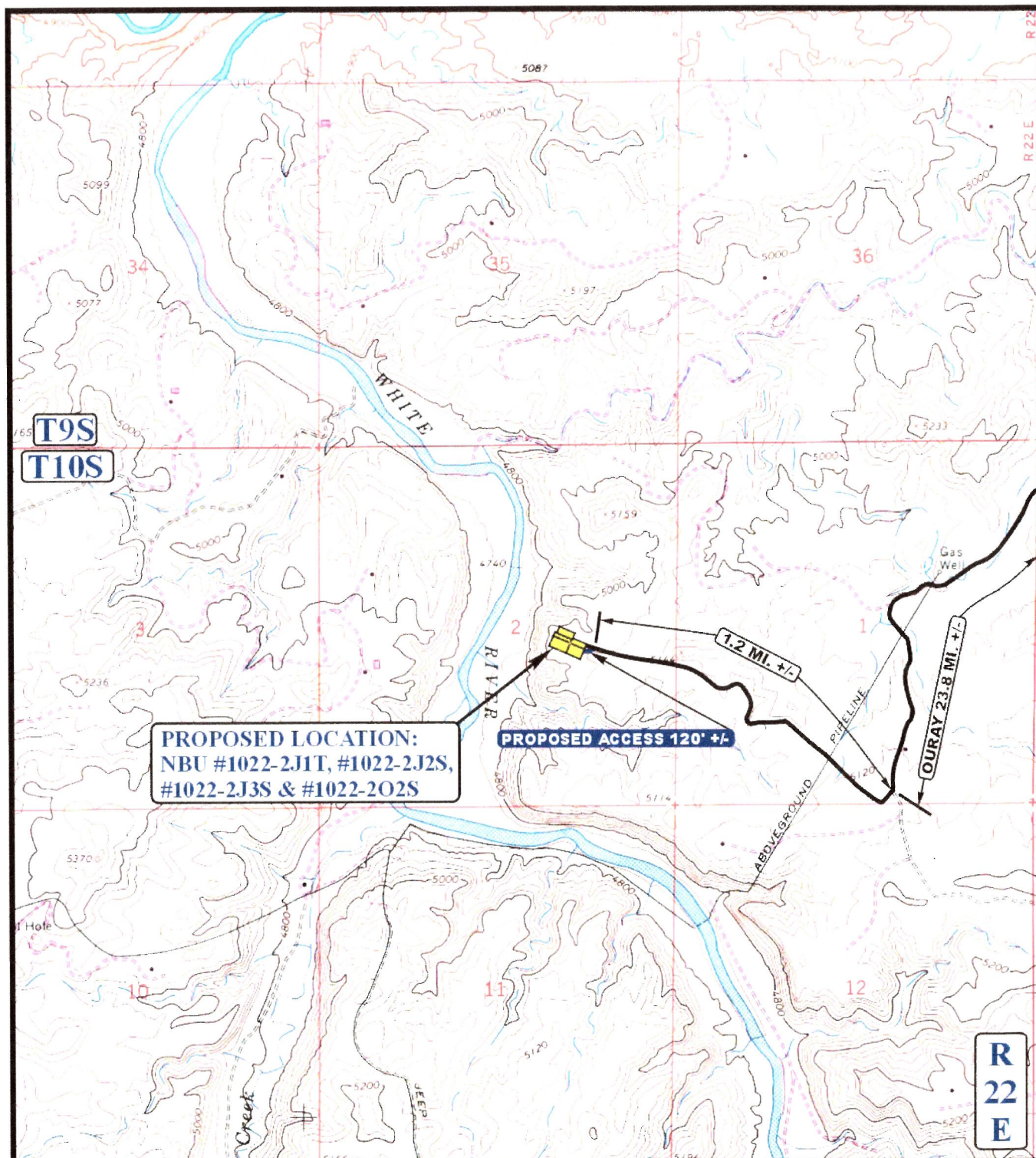
07 14 08
MONTH DAY YEAR

SCALE: 1:100,000

DRAWN BY: J.J.

REVISED: 09-15-08





LEGEND:

EXISTING ROAD



Kerr-McGee Oil & Gas Onshore LP

NBU #1022-2J1T, #1022-2J2S, #1022-2J3S & #1022-2O2S
SECTION 2, T10S, R22E, S.L.B.&M.
NW 1/4 SE 1/4

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TOPOGRAPHIC MAP

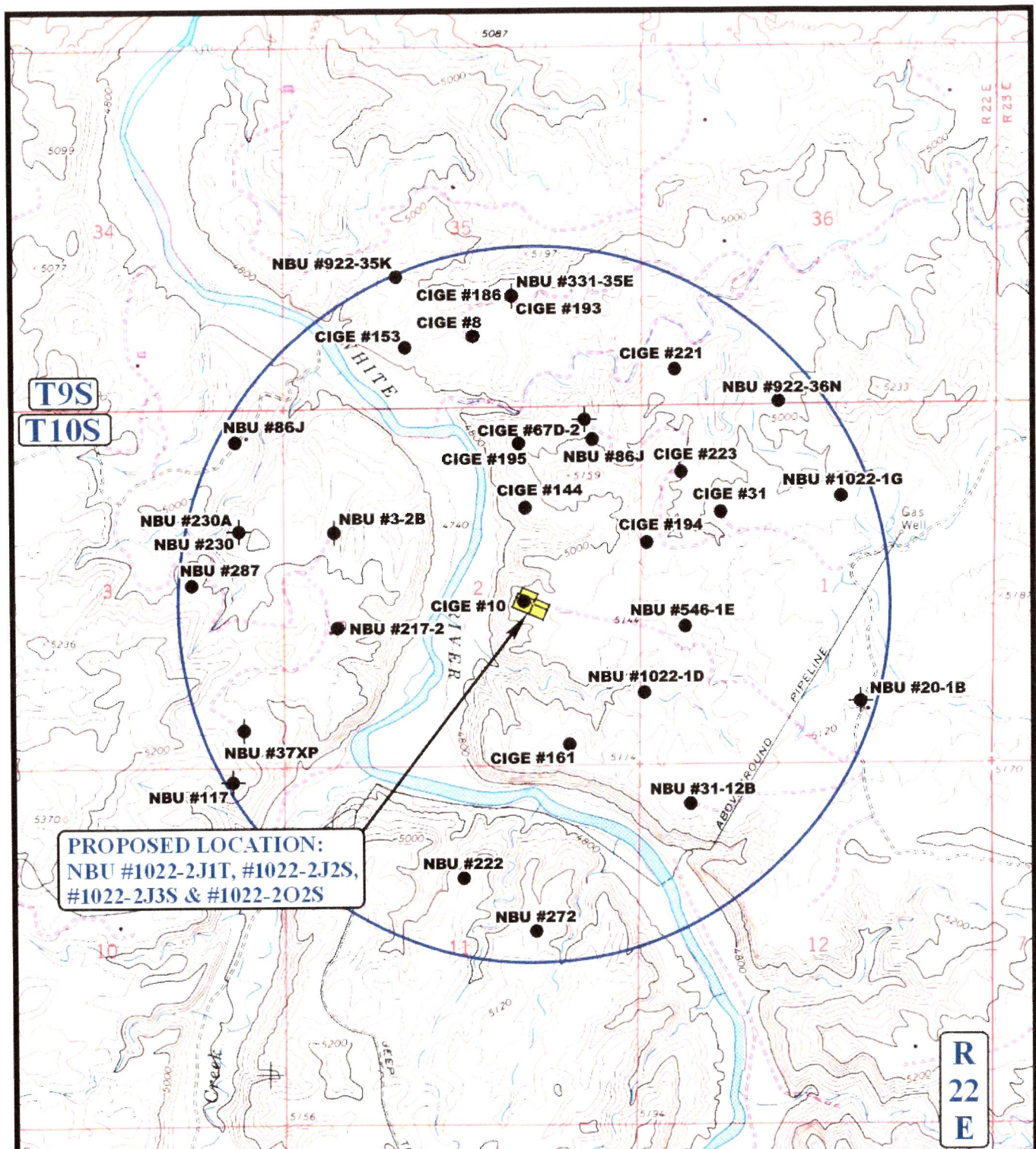
SCALE: 1" = 2000'
 DRAWN BY: J.J.
 REVISED: 09-15-08

07
 MONTH

14
 DAY

08
 YEAR

B TOPO



LEGEND:

- | | |
|-------------------|-------------------------|
| ⊗ DISPOSAL WELLS | ⊗ WATER WELLS |
| ● PRODUCING WELLS | ⊗ ABANDONED WELLS |
| ⊙ SHUT IN WELLS | ⊙ TEMPORARILY ABANDONED |



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Kerr-McGee Oil & Gas Onshore LP

NBU #1022-2J1T, #1022-2J2S, #1022-2J3S & #1022-2O2S
 SECTION 2, T10S, R22E, S.L.B.&M.
 NW 1/4 SE 1/4

TOPOGRAPHIC
 MAP

07 14 08
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: J.J. REVISED: 09-15-08



Kerr-McGee Oil & Gas Onshore LP

NBU #1022-2J1T, #1022-2J2S, #1022-2J3S & #1022-2O2S

LOCATED IN UINTAH COUNTY, UTAH
SECTION 2, T10S, R22E, S.L.B.&M.

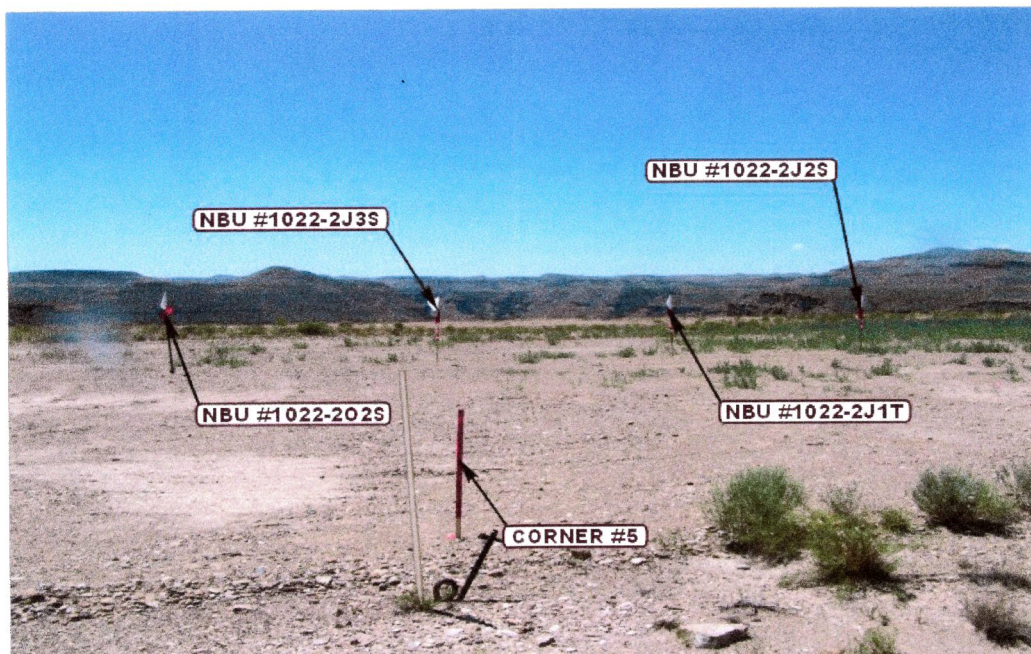


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: SOUTHWESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: WESTERLY



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS

07	14	08
MONTH	DAY	YEAR

PHOTO

TAKEN BY: L.K.

DRAWN BY: J.J.

REVISED: 09-15-08

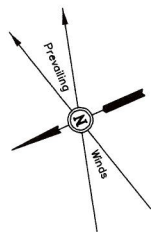
FIGURE #1

SCALE: 1" = 50'

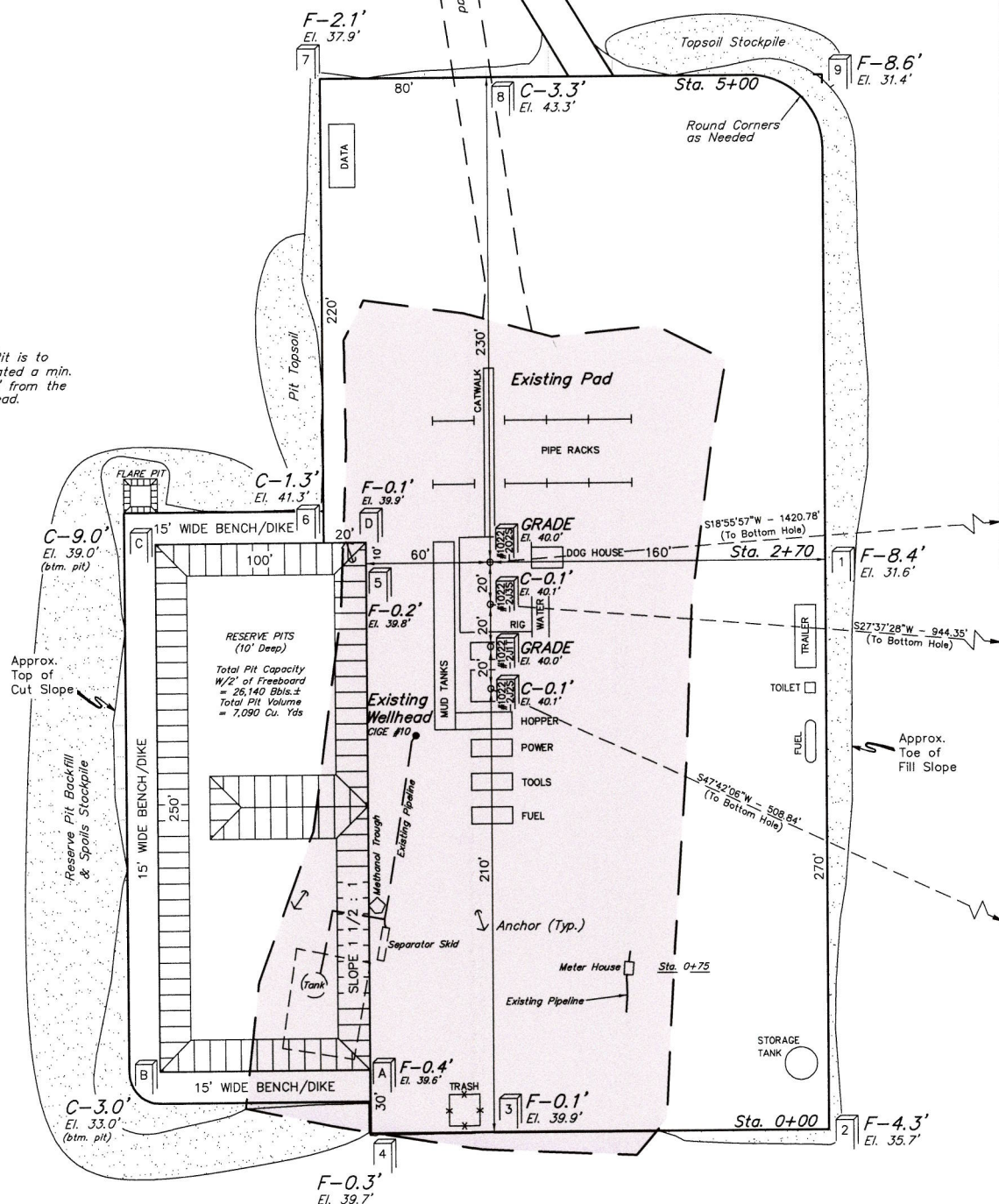
DATE: 07-08-08

Drawn By: S.L.

Revised: 08-26-08 C.C.



NOTE:
Flare Pit is to
be located a min.
of 100' from the
Well Head.



CIGE #10

(NAD 83)
LATITUDE = 39°58'38.43" (39.977342)
LONGITUDE = 109°24'12.86" (109.403572)
(NAD 27)
LATITUDE = 39°58'38.55" (39.977375)
LONGITUDE = 109°24'10.41" (109.402892)

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

Elev. Ungraded Ground at #1022-202S Location Stake = 5040.0'
Elev. Graded Ground at #1022-202S Location Stake = 5040.0'

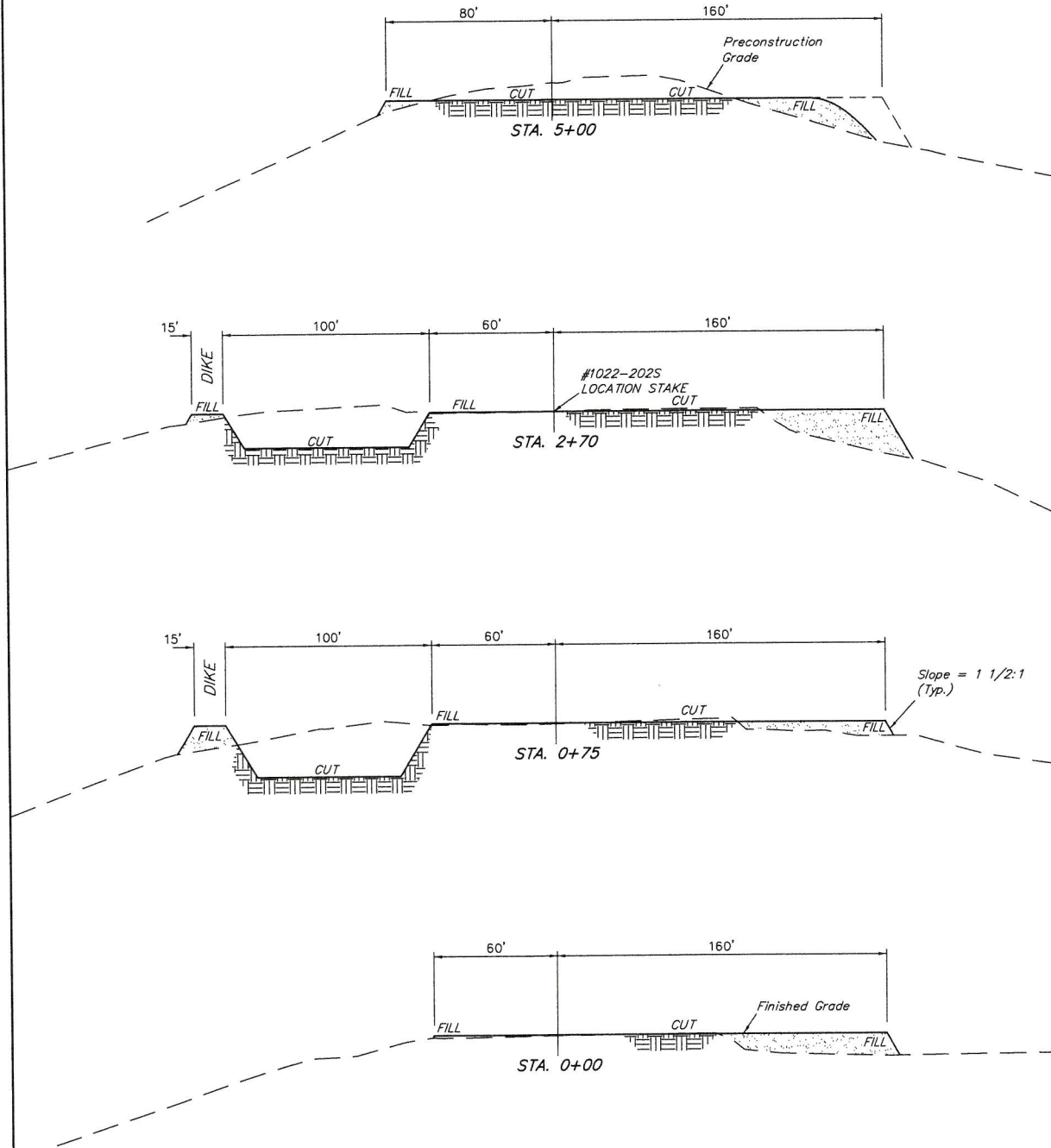
'APIWellNo:43047502190000'

Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

1" = 20'
X-Section
Scale
1" = 50'
DATE: 07-08-08
Drawn By: S.L.
Revised: 08-26-08 C.C.

TYPICAL CROSS SECTIONS FOR
NBU #1022-202S, #1022-2J3S, #1022-2J1T & #1022-2J2S
SECTION 2, T10S, R22E, S.L.B.&M.
NW 1/4 SE 1/4



NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES
WELL SITE DISTURBANCE = ± 4.131 ACRES
ACCESS ROAD DISTURBANCE = ± 0.086 ACRES
TOTAL = ± 4.217 ACRES

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping = 1,450 Cu. Yds.
Remaining Location = 8,950 Cu. Yds.
TOTAL CUT = 10,400 CU.YDS.
FILL = 9,120 CU.YDS.

EXCESS MATERIAL = 1,280 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 5,000 Cu. Yds.
DEFICIT UNBALANCE = <3,720> Cu. Yds.
(After Interim Rehabilitation)

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85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017

Kerr-McGee Oil & Gas Onshore LP
NBU #1022-2J1T, #1022-2J2S, #1022-2J3S & #1022-2O2S
SECTION 2, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN AN SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 5.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.2 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 120' TO THE EXISTING LOCATION CIGE #10 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.0 MILES.

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 22E
UINTAH COUNTY, UTAH

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 22E
UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Bureau of Land Management
Vernal Field Office
and
School and Institutional
Trust Lands Administration

Prepared Under Contract With:

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MOAC Report No. 08-268

October 16, 2008

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

INTRODUCTION

A Class I literature review was completed by Montgomery Archaeological Consultants, Inc. (MOAC) in October 2008 of Kerr-McGee Onshore's 73 proposed NBU well locations in Township 10S, Range 22E. The project area is situated south of the White River and southeast of the Ouray, Uintah County, Utah. The wells are designated NBU 1022-1I, 1022-1J, 1022-1N, 1022-1P, 1022-2A2T, 1022-2A3S, 1022-2A4S, 1022-2B2S, 1022-2D, 1022-2F, 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-2O2S, 1022-03A2T, 1022-03A3S, 1022-03B2S, 1022-03B4T, 1022-03C1S, 1022-04H2CS, 1022-04H3BS, 1022-03H2T, 1022-03L4BS, 1022-03L3DS, 1022-03M1DS, 1022-03M2DS, 1022-03J3T, 1022-03L2T, 1022-03N4T, 1022-03P4T, 1022-03O3T, 1022-04K3S, 1022-04M1S, 1022-05H2BS, 1022-05H2CS, 1022-05E4S, 1022-05F2S, 1022-05K1S, 1022-05L1S, 1022-05IT, 1022-06DT, 1022-06ET, 1022-06FT, 1022-06I3AS, 1022-06J4CS, 1022-06O1BS, 1022-06P1CS, 1022-7AT, 1022-7A4BS, 1022-7A4CS, 1022-7B2DS, 1022-08GT, 1022-08IT, 1022-09AT, 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S, 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S, 1022-13H, 1022-24O, 1022-24O2S, 1022-24P2S, 1022-24P4S, 1022-25H, 1022-32B3S, 1022-32D1S, 1022-32D4AS, 1022-32D4DS, and 1022-35M.

The purpose of this Class I review is to identify, classify, and evaluate the previously conducted cultural resource inventories and archaeological sites in the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

The project area in which Kerr-McGee Onshore's 73 proposed NBU well locations occur was previously inventoried by MOAC in 2007 for the Class III inventory of Township 10 South, Range 22 East (Montgomery 2008; U-07-MQ-1438b,s,p). A file search was completed by consulting MOAC's Class I existing data review of 459 square miles (293,805 acres) covering the Greater NBU study area between Bonanza and Ouray in Uintah County, northeastern Utah (Patterson et al. 2008). Kerr-McGee Oil & Gas Onshore LP proposes to explore and develop oil and natural gas resources throughout the area. Record searches were performed for this Class I project by Marty Thomas at the Utah State Historic Preservation Office (SHPO) on various dates between June 14, 2006 and January 27, 2007. The results of this Class I data review and Class III inventory indicated that no previously recorded sites occur in the current project area.

DESCRIPTION OF THE PROJECT AREA

The project area is situated west of the White River and both sides of Bitter Creek in the Uinta Basin. The legal description is Township 10S, Range 22E, Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 24, 25, 32, 36; Township 11S, Range 22E, Sections 1 and 2 (Figures 1, 2 and 3; Table 1). Land status is public land administered by the Bureau of Land Management (BLM) Vernal Field Office and School and Institutional Trust Lands Administration (SITLA) property.

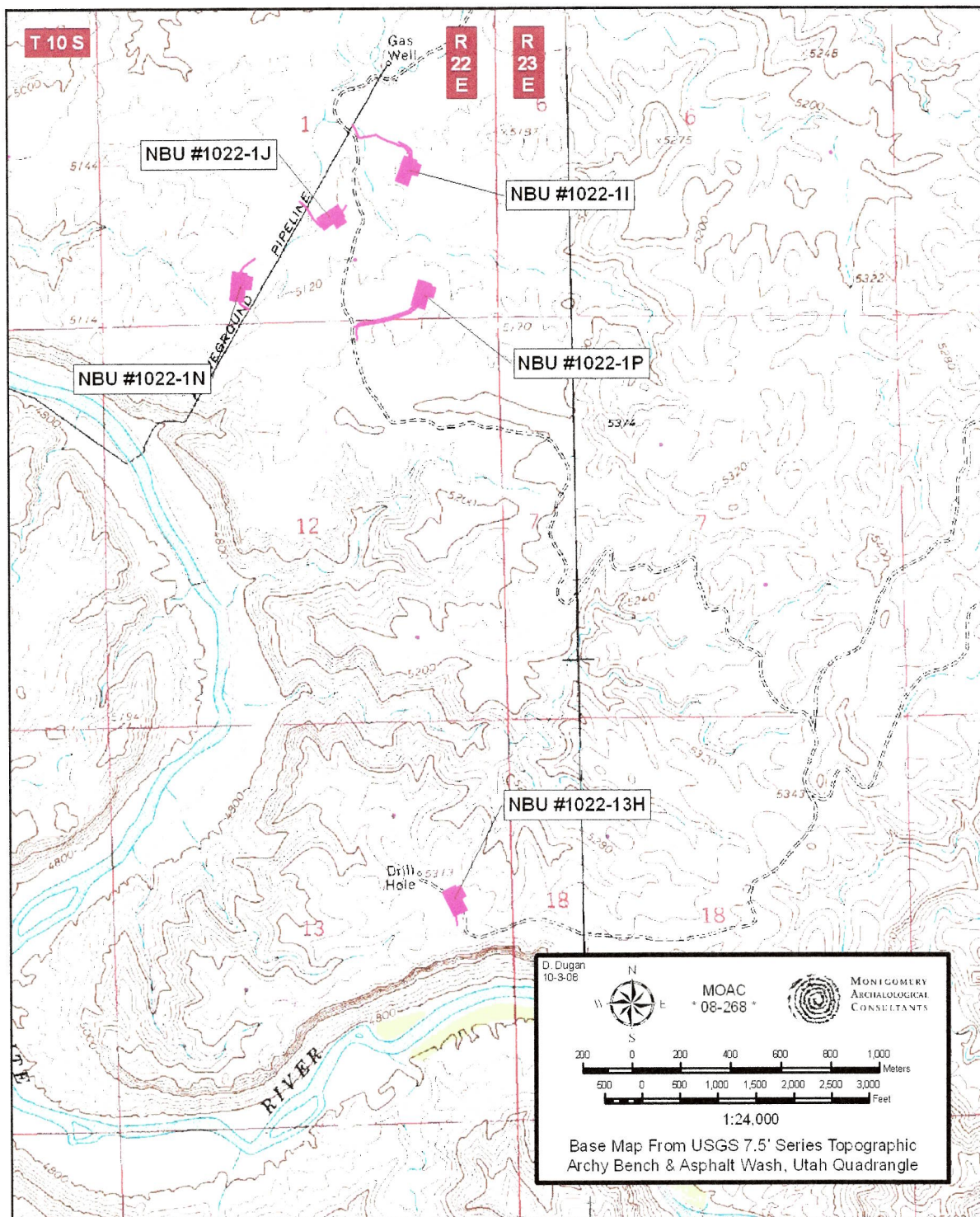
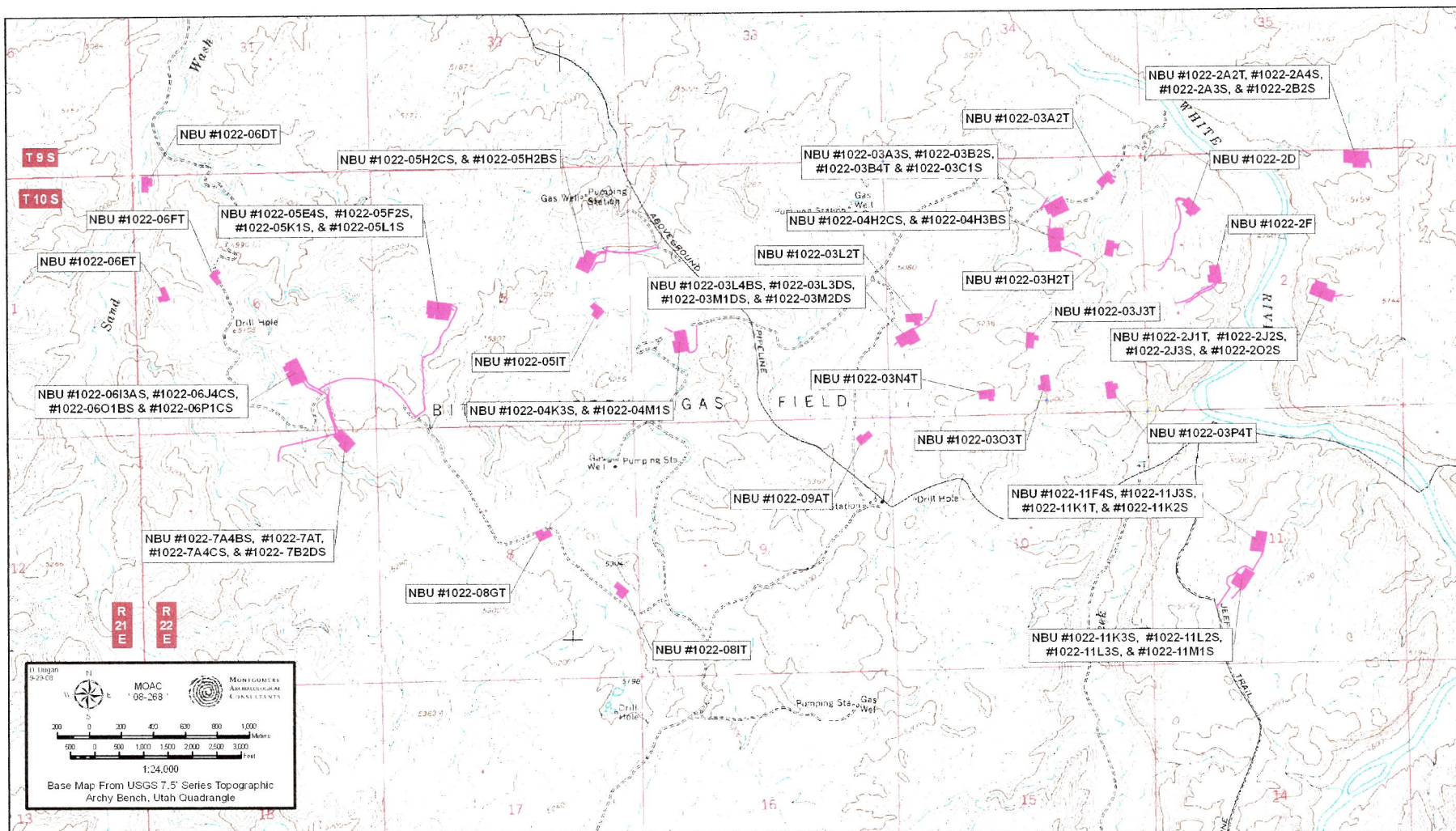


Figure 1. Location of Kerr-McGee Onshore's Well Pads in T10S, R22E.



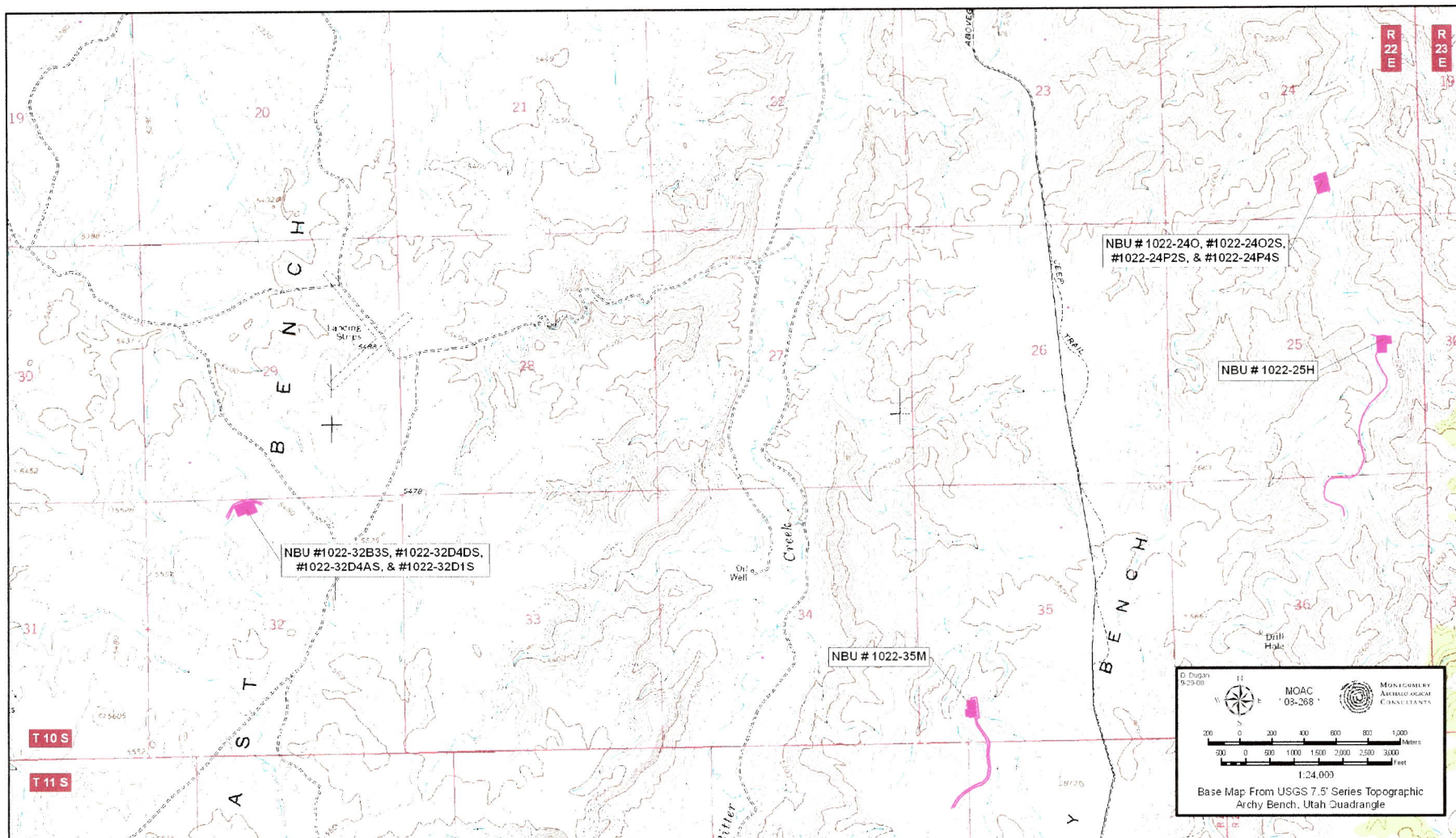


Table 1. Kerr-McGee Onshore's 73 NBU Well Locations.

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-1I	T10S, R22E, Sec. 1 NE/SE	Pipeline: 1000 ft Access: 200 ft	None
NBU 1022-1J	T10S, R22E, Sec. 1 NW/SE	Pipeline: 400 ft Access: 50 ft	None
NBU 1022-1N	T10S, R22E, Sec. 1 SE/SW	Pipeline: 150 ft Access: 200 ft	None
NBU 1022-1P	T10S, R22E, Sec. 1 SE/SE	Pipeline: 1050 ft Access: 1000 ft	None
NBU 1022-2A2T, 1022-2A4S 1022-243S, 1022-2B2S	T10S, R22E, Sec. 2 NE/NE	Access: 200 ft	None
NBU 1022-2D	T10S, R22E, Sec. 2 NW/NW	Pipeline: 1600 ft	None
NBU 1022-2F	T10S, R22E, Sec. 2 SE/NW	Pipeline: 800 ft Access: 1000 ft	None
NBU 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-202S	T10S, R22E, Sec. 2 NW/SE	Pipeline: 200 ft	None
NBU 1022-03A2T	T10S, R22E, Sec. 3 NE/NE	None	None
NBU1022-03A3S, 1022-03B2S 1022-03B4T, 1022-03C1S	T10S, R22E, Sec. 3 NW/NE	None	None
NBU 1022-04H2CS 1022-04H3BS	T10S, R22E, Sec. 3 SW/NE	Pipeline: 450 ft Access: 200 ft	None
NBU 1022-03H2T	T10S, R22E, Sec. 3 SE/NE	None	None
NBU 1022-03J3T	T10S, R22E, Sec. 3 NW/SE	None	None
NBU 1022-03L2T	T10S, R22E, Sec. 3 NW/SW	None	None
NBU 1022-03L4BS, 1022-03L3DS 1022-03M1DS, 1022-03M2DS	T10S, R22E, Sec. 3 NW/SW	Pipeline: 800 ft Access: 100 ft	None
NBU 1022-03N4T	T10S, R22E, Sec. 3 SE/SW	None	None
NBU 1022-03O3T	T10S, R22E, Sec. 3 SW/SE	None	None
NBU 1022-03P4T	T10S, R22E, Sec. 3 SE/SE	None	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-04K3S, 1022-04M1S	T10S, R22E, Sec. 4 NW/SW	Pipeline: 200 ft Access: 600 ft	None
NBU 1022-05H2CS, 1022-05H2BS	T10S, R22E, Sec. 5 SE/NE	Pipeline: 800 ft Access: 1200 ft	None
NBU 1022-05E4S, 1022-05F2S 1022-05K1S, 1022-05L1S	T10S, R22E Sec. 5 NE/SW	Pipeline: 4800 ft Access: 100 ft	None
NBU 1022-05IT	T10S, R22E, Sec. 5 NE/SE	None	None
NBU 1022-06DT	T10S, R22E, Sec. 6 NW/NW	None	None
NBU 1022-06ET	T10S, R22E, Sec. 6 SW/NW	None	None
NBU 1022-06FT	T10S, R22E, Sec. 6 SE/NW	None	None
NBU 1022-06I3AS, 1022-06J4CS 1022-06O1BS, 1022-06P1CS	T10S, R22E, Sec. 6 SW/SE	Pipeline: 1400 ft Access: 450 ft	None
NBU 1022-7A4BS, 1022-7AT 1022-7A4CS, 1022-7B2DS	T10S, R22E, Sec. 7 NE/NE	Pipeline: 1300 ft Access: 1000 ft	None
NBU 1022-08GT	T10SS, R22E, Sec. 8 SW/NE	None	None
NBU 1022-08IT	T10S, R22E, Sec. 8 NE/SE	None	None
NBU 1022-09AT	T10S, R22E, Sec. 9 NE/NE	None	None
NBU 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 1600 ft	None
NBU 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 500 ft Access: 250 ft	None
NBU 1022-13H	T10S, R22E, Sec. 13 SE/NE	Pipeline: 100 ft	
NBU 1022-24O, 1022-24O2S 1022-24P2S, 1022-24P4S	T10S, R22E, Sec. 24 SW/SE	None	None
NBU 1022-25H	T10S, R22E, Sec. 25 SE/NE	Pipeline: 4000 ft	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-32B3S, 1022-32D4DS 1022-3-2D4AS, 1022-32D1S	T10S, R22E, Sec. 32 NE/NW	Pipeline: 900 ft Access: 800 ft	None
NBU 1022-35M	T10S, R22E, Sec. 35 SW/SW	Pipeline: 2750 ft Access: 2200 ft	None

Environmental Setting

The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits, which include Paleocene age deposits and Eocene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities. Specifically, the inventory area is situated south of the White River and on both sides of Cottonwood Wash. Elevation ranges from 5080 to 5680 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, and prickly pear cactus. Modern disturbances include livestock grazing, roads, and oil/gas development.

CLASS I RESULTS AND RECOMMENDATIONS

The Class I literature review of Kerr-McGee Onshore's 73 proposed NBU well locations and associated pipeline/access corridors in Township 10S, Range 22E resulted in the location of no cultural resources. Based on the findings, a determination of "no adverse impact" is recommended for the undertaking pursuant to Section 106, CFR 800.

REFERENCES CITED

- Montgomery, J. A.
2007 Cultural Resource Management Report for Kerr-McGee Oil and Gas Onshore LP's Greater NBU Blocks in Township 10 South, Range 22 East, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Report No. U-07-MQ-1438bsp.
- Patterson, J. J., J. Fritz, K. Lower-Eskelson, R. Stash and A. Thomas
2008 NBU Class I Existing Data Review for Kerr-McGee Oil & Gas Onshore LP, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah.
- Stokes, W. L.
1986 *Geology of Utah*. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Twin Wells "NBU #922-32AT,
#922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT"
(Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T &
#1022-2JIT" (Sec. 2, T 10 S, R 22 E)**

Archy Bench
Topographic Quadrangle
Uintah County, Utah

July 25, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by the BLM Vernal Field Office and James Kirkland of the Office of the State Paleontologist, a paleontological reconnaissance survey of Kerr McGee's proposed twin wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2, T 10 S, R 22 E) was conducted by Stephen D. Sandau Jason Klimek and Arica Scheetz on July 22 and 23, 2008. The reconnaissance survey was conducted under the Utah BLM Paleontological Resources Use Permit #UT08-006C and Utah Paleontological Investigations Permit #07-356. This survey to locate, identify, and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

- 1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et. Seq., P.L. 91-190);
- 2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579);
- 3) The National Historic Preservation Act. 16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320; and
- 4) The Utah Geological Survey. S. C. A.: 63-73-1. (1-21) and U.C.A.: 53B-17-603

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- **Class 1 – Very Low.** Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- **Class 2 – Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc...)
- **Class 3 – Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
 - **Class 3a – Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.

- **Class 3b – Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.
- **Class 4 – High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
 - **Class 4a** – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - **Class 4b** – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- **Class 5 – Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
 - **Class 5a** - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - **Class 5b** - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

LOCATION

Kerr McGee's proposed twin wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2, T 10 S, R 22 E) are on lands managed by the BLM and the State of Utah Trust Lands Administration (SITLA), in and slightly northeast of Sand Wash, south of Coyote Wash and on the East Bench, just 16 miles south and east of Ouray, Utah, and 12-16 miles west of Bonanza, Utah. The project area can be found on the Archy Bench 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt, and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

NBU #922-32AT

The proposed twin is located on the existing well "NBU #190" in the NE/NE quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located on a colluvium-covered hill derived from underlying sandstones which outcrop along the perimeter. No fossils were found.

NBU #922-32IT

The proposed twin is located on the existing well "NBU #282" in the NE/SE quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located on a colluvium-covered hill of inter-bedded brown/tan sandstones.

No fossils were found.

NBU #922-32MT

The proposed twin is located on the existing well “NBU #281” in the SW/SW quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located among hills of inter-bedded tan sandstones and variegated green siltstone.

No fossils were found.

NBU #922-32OIT

The proposed twin is located on the existing well “NBU #404” in the SW/SE quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located among hills of inter-bedded gray sandstones and variegated mudstones. No fossils were found.

NBU #922-35IT

The proposed twin is located on the existing well “CIGE #118” in the NE/SE quarter-quarter section of Sec. 35, T 9 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones which outcrop along the perimeter. No fossils were found.

NBU #922-36NT

The proposed twin is located on a previously existing well “CIGE #147” in the SE/SW quarter-quarter section of Sec. 36, T 9 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones. No fossils were found.

NBU #1022-2JIT (multi-well also included: 2J25, 2J3S & 2O2S)

The proposed twin is located on the existing well “CIGE #10” in the NW/SE quarter-quarter section of Sec. 2, T 10 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones. No fossils were found.

NBU #1022-2A2T (multi-well also included: 2B2S, 2A3S & 2A4S)

The proposed twin is located on the existing well “CIGE #67A” in the NE/NE quarter-quarter section of Sec. 2, T 10 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones. No fossils were found.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
“NBU #922-32AT” (Sec. 32, T 9 S, R 22 E)	The proposed twin is located on a colluvium-covered hill derived from underlying sandstones which outcrop along the perimeter.	No fossils were found. Class 3a
“NBU #922-32IT” (Sec. 32, T 9 S, R 22 E)	The proposed twin is located on a colluvium-covered hill of inter-bedded brown/tan sandstones.	No fossils were found. Class 3a
“NBU #922-32MT” (Sec. 32, T 9 S, R 22 E)	The proposed twin is located among hills of inter-bedded tan sandstones and variegated green siltstone.	No fossils were found. Class 3a
“NBU #922-32OIT” (Sec. 32, T 9 S, R 22 E)	The proposed twin is located among hills of inter-bedded gray sandstones and variegated mudstones.	No fossils were found. Class 3a
“NBU #922-35IT” (Sec. 35, T 9 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones which outcrop along the perimeter.	No fossils were found. Class 3a
“NBU #922-36NT” (Sec. 36, T 9 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones.	No fossils were found Class 3a
“NBU #1022-2A2T” (Sec. 2, T 10 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones.	No fossils were found. Class 3a
“NBU #1022-2JIT” (Sec. 2, T 10 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones.	No fossils were found. Class 3a

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed twin wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2, T 10 S, R 22 E). The twin wells covered in this report showed no signs of vertebrate fossils. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formational sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, Operator (Lease Holder) will report all occurrences of paleontological resources discovered to a geologist with the Vernal Field Office of the BLM and the Office of the State Paleontologist. The operator is responsible for informing all persons in the areas who are associated with this project of the requirements for protecting paleontological resources. Paleontological resources found on the public lands are recognized by the BLM and State as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage. These resources are afforded protection under 43 CFR 3802 and 3809, and penalties possible for the collection of vertebrate fossils are under 43 CFR 8365.1-5.

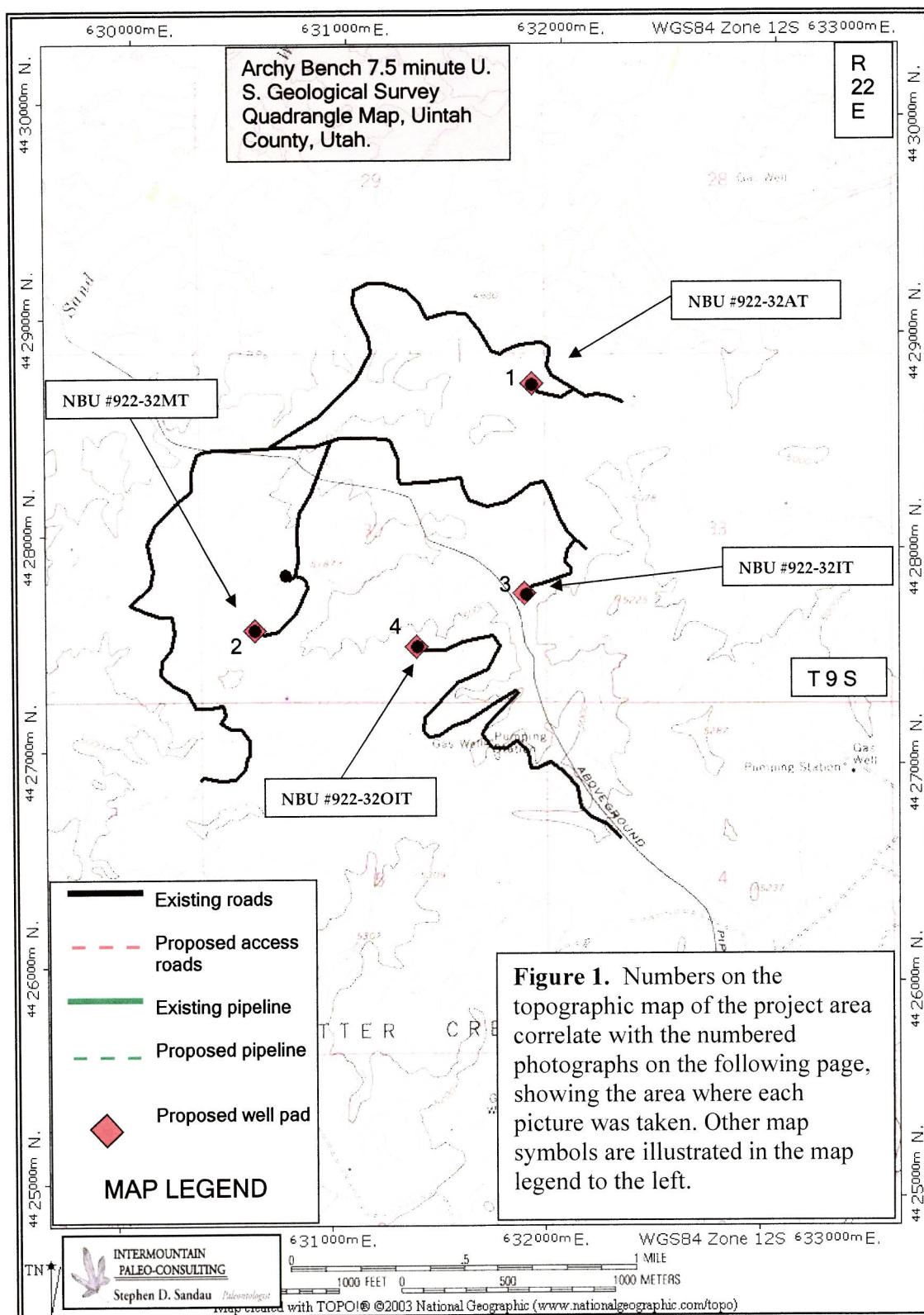
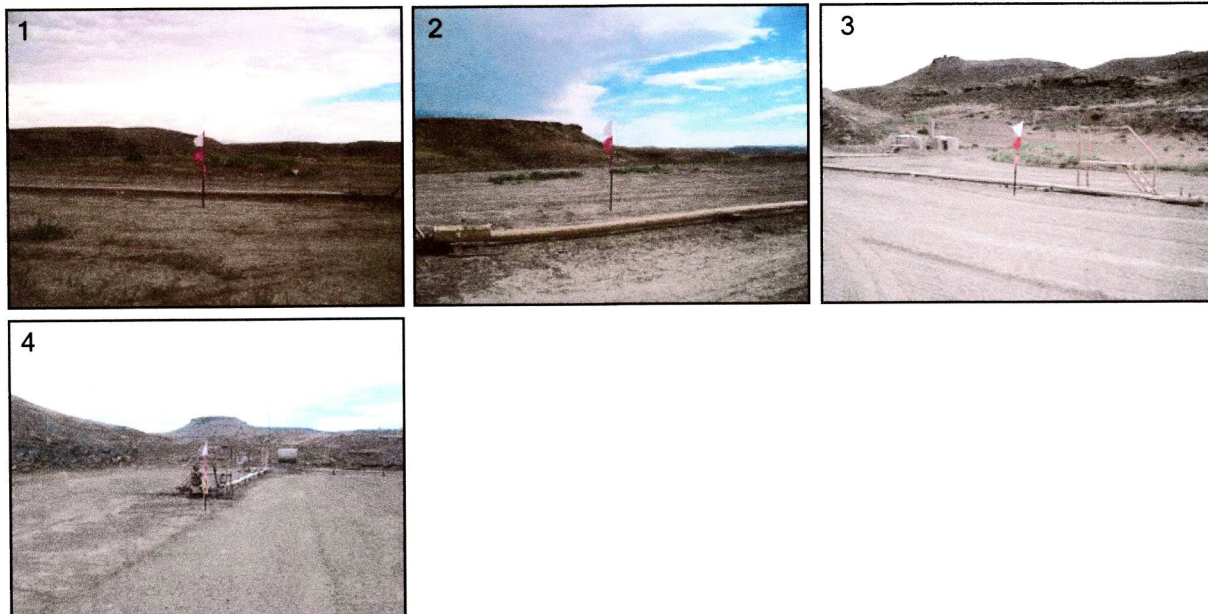


Figure 1. *continued. . .*



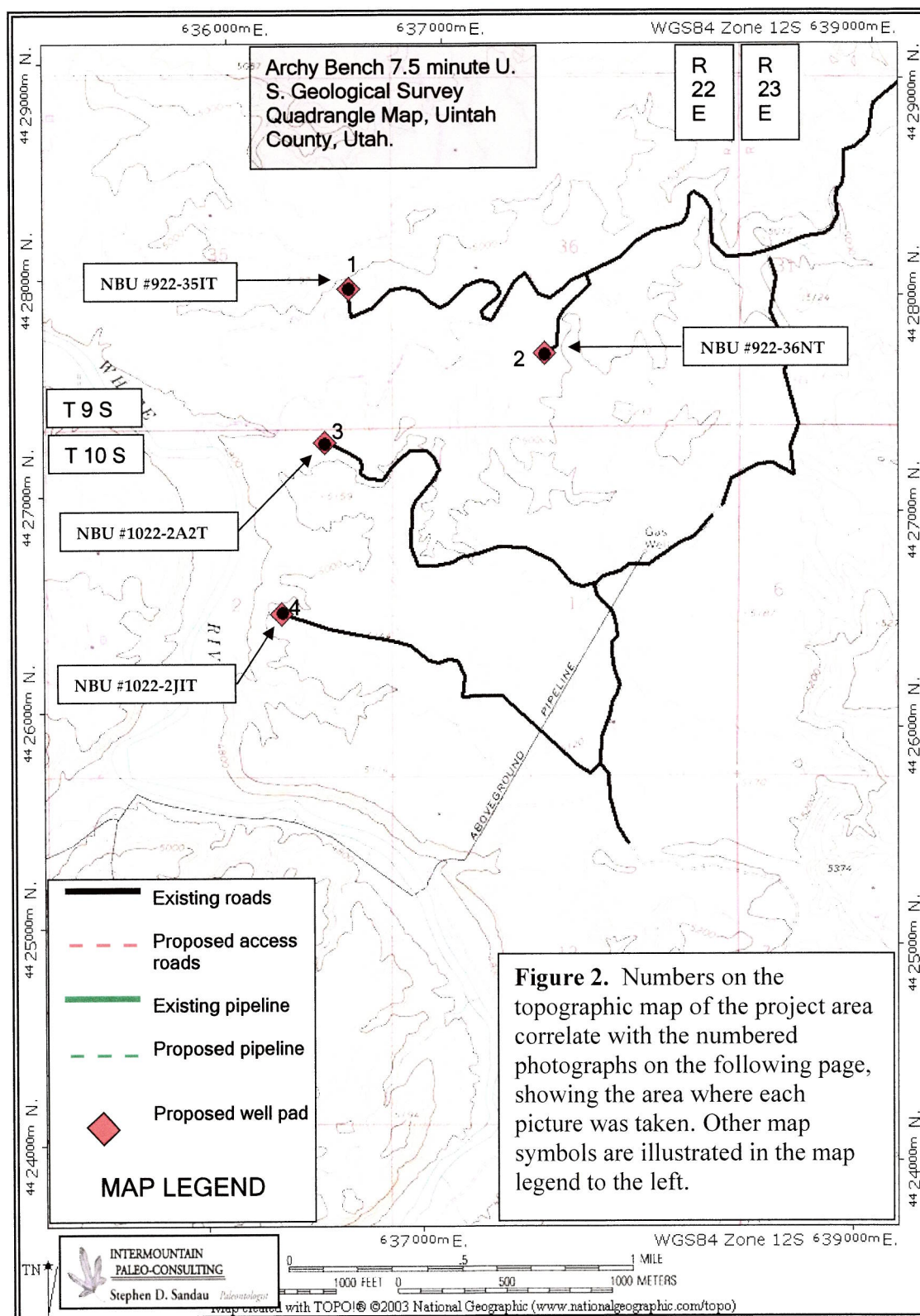
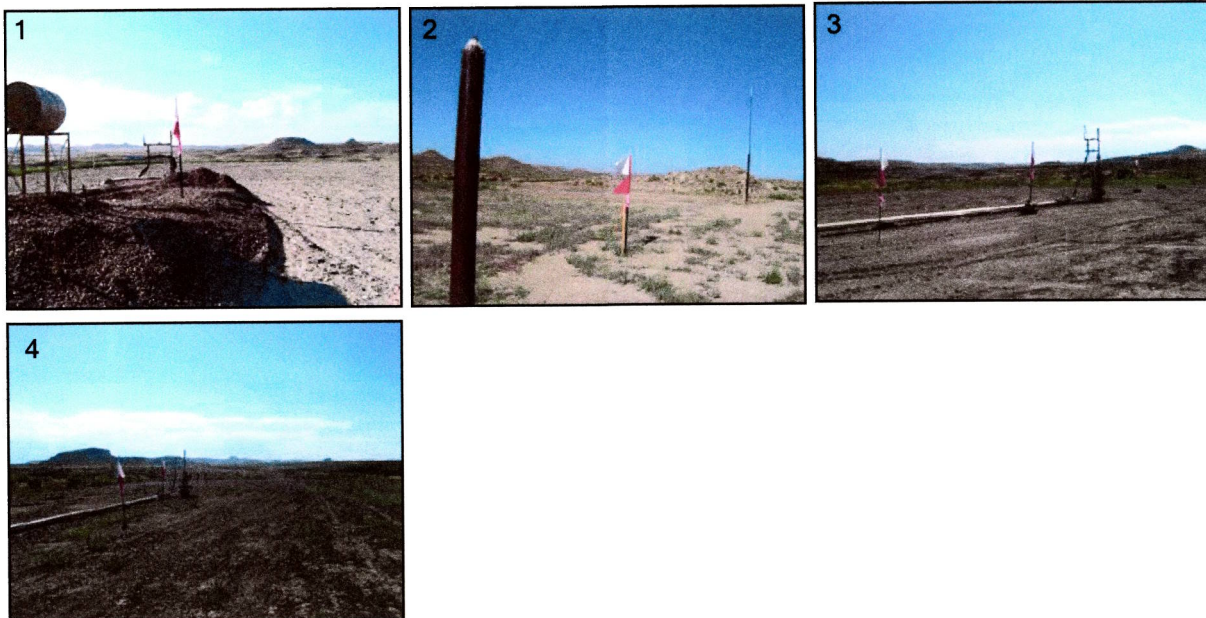


Figure 2. *continued.* . .



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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160
(UT-922)

November 12, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit Uintah
County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50212	NBU 1022-11F4S Sec 11	T10S R22E 2571 FSL 2215 FWL
	BHL Sec 11	T10S R22E 2615 FNL 2540 FWL
43-047-50213	NBU 1022-11J3S Sec 11	T10S R22E 2551 FSL 2212 FWL
	BHL Sec 11	T10S R22E 1600 FSL 2340 FEL
43-047-50214	NBU 1022-11K2S Sec 11	T10S R22E 2512 FSL 2206 FWL
	BHL Sec 11	T10S R22E 2230 FSL 1690 FWL
43-047-50215	NBU 1022-11K1T Sec 11	T10S R22E 2531 FSL 2209 FWL
43-047-50216	NBU 1022-202S Sec 02	T10S R22E 2354 FSL 1593 FEL
	BHL Sec 02	T10S R22E 1010 FSL 2055 FEL
43-047-50217	NBU 1022-2J3S Sec 02	T10S R22E 2362 FSL 1612 FEL
	BHL Sec 02	T10S R22E 1525 FSL 2050 FEL
43-047-50218	NBU 1022-2J2S Sec 02	T10S R22E 2377 FSL 1648 FEL
	BHL Sec 02	T10S R22E 2035 FSL 2025 FEL
43-047-50219	NBU 1022-2J1T Sec 02	T10S R22E 2370 FSL 1630 FEL

Page 2

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50220	NBU 1022-11M1S Sec 11 T10S R22E 1750 FSL 1885 FWL BHL Sec 11 T10S R22E 1035 FSL 0850 FWL	
43-047-50221	NBU 1022-11L2S Sec 11 T10S R22E 1798 FSL 1921 FWL BHL Sec 11 T10S R22E 2495 FSL 0080 FWL	
43-047-50222	NBU 1022-11K3S Sec 11 T10S R22E 1766 FSL 1897 FWL BHL Sec 11 T10S R22E 1655 FSL 1735 FWL	
43-047-50223	NBU 1022-11L3S Sec 11 T10S R22E 1782 FSL 1909 FWL BHL Sec 11 T10S R22E 1850 FSL 0040 FWL	

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:11-12-08

From: Jim Davis
To: Bonner, Ed; Mason, Diana
Date: 12/15/2008 3:20 PM
Subject: Well approvals. 1 KMG and 1 Newfield

CC: Garrison, LaVonne

The following well have been approved by SITLA including arch and paleo clearance.

4304740316 170E	STATE 1-36T-8-17 Newfield Production Co. S	105	Monument Butte	NENE	36	080S
4304750219 220E	NBU 1022-2J1T S	630	Natural Buttes	NWSE	2	100S

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-2J1T 430475021900			
String	Surf	Prod		
Casing Size(in)	9.625	4.500		
Setting Depth (TVD)	1900	8500		
Previous Shoe Setting Depth (TVD)	60	1900		
Max Mud Weight (ppg)	8.4	12.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3520	7780		
Operators Max Anticipated Pressure (psi)	5270	11.9		

Calculations	Surf String	9.625	"
Max BPH (psi)	.052*Setting Depth*MW=	830	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	602	NO Air Drill - OK
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	412	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	425	NO Reasonable depth, no expected pressures
Required Casing/BOPE Test Pressure=		1900	psi
*Max Pressure Allowed @ Previous Casing Shoe=		60	psi *Assumes 1psi/ft frac gradient

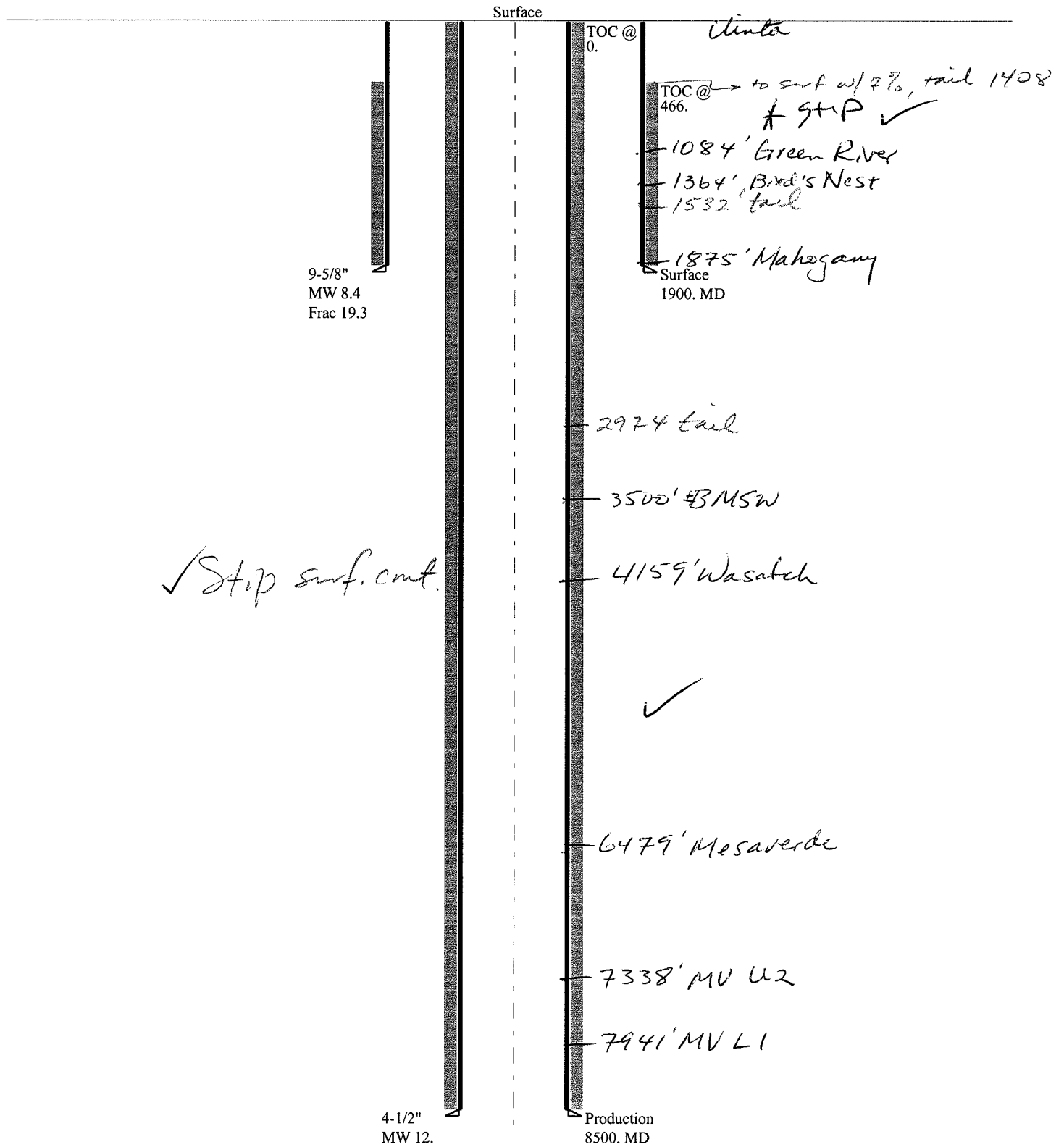
Calculations	Prod String	4.500	"
Max BPH (psi)	.052*Setting Depth*MW=	5304	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4284	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3434	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3852	NO Reasonable, note max allowable pressure
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		1900	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

43047502190000 NBU 1022-2J1T

Casing Schematic



Well name:	43047502190000 NBU 1022-2J1T	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Surface	Project ID: 43-047-50219
Location:	UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 466 ft

Burst

Max anticipated surface pressure: 1,672 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,900 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 1,664 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,500 ft
Next mud weight: 12.000 ppg
Next setting BHP: 5,299 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,900 ft
Injection pressure: 1,900 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	1900	9.625	36.00	J-55	LT&C	1900	1900	8.796	15537
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	829	2020	2.436	1900	3520	1.85	68.4	453	6.62 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: January 28, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1900 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43047502190000 NBU 1022-2J1T		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-50219
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 12.000 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 194 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Burst:

Design factor 1.00

Cement top: Surface

Burst

Max anticipated surface pressure: 3,429 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,299 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Non-directional string.

Tension is based on air weight.
Neutral point: 6,975 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8500	4.5	11.60	I-80	LT&C	8500	8500	3.875	112200

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5299	6360	1.200	5299	7780	1.47	98.6	212	2.15 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: January 28,2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8500 ft, a mud weight of 12 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 1022-2J1T				
API Number	43047502190000	APD No	1161	Field/Unit	NATURAL BUTTES
Location: 1/4,1/4	NWSE	Sec 2	Tw 10.0S	Rng 22.0E	2370 FSL 1630 FEL
GPS Coord (UTM)	636426 4426249	Surface Owner			

Participants

Floyd Bartlett (DOGM), Jim Davis (SITLA), Ramie Hoopes, Griz Oleen and Tony Kzneck (Kerr McGee), Pat Rainbolt (UDWR) and David Kay (Uintah Engineering and Land Surveying).

Regional/Local Setting & Topography

The general area is in the southeast end of the Natural Buttes Unit, which contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Ouray, Utah is approximately 25 road miles following Utah State, Uintah County and oilfield development roads to the location.

The proposed pad encompasses the existing pad of the CIGE 10 gas well and will be enlarged in all directions except to the west. The location is near the end of a flat-topped ridge which runs in an east to west direction and ends west of the proposed pad at some steep ledged breaks. Swales exist to the south and east which becomes deep secondary canyons of the White River. The planned reserve pit is on the north side of the location and also extends to near the edge of a seep side-slope of a canyon. Pit corner C is embanked by 0.6 ' of fill but should be stable with the 15-foot wide outer embankment. The existing pad shows no stability problems and the site has no significant concerns, which would prohibit constructing an enlarged pad, drilling and operating the planned wells, and is the only suitable location in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA reviewed the site and had no concerns regarding the proposal.

Pat Rainbolt of the Utah Division of Wildlife Resources also attended the pre-site. Mr. Rainbolt stated drilling and operating the wells at this location would significantly affect no wildlife values. He provided Jim Davis of SITLA and Ramie Hoopes of Kerr McGee a written wildlife evaluation and a copy of a recommended seed mix to be used for re-vegetating the disturbed area.

Surface Use Plan

Current Surface Use

Wildlfe Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 335 Length 500	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Poorly vegetated with cheatgrass, black sagebrush, broom snakeweed, shadscale, rabbitbrush, pepper weed, halogeton, black sage and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

Soil Type and Characteristics

Shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? **Paleo Potential Observed?** N **Cultural Survey Run?** **Cultural Resources?** N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)		20
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		35

1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut in the northwest corner of the location. Dimensions are 100' x 250' x 10' deep with 2' of freeboard. A 15' bench is provided on the outer sides. Because the length of time the reserve pit will be used and the roughness of the terrain, Kerr McGee committed to line it with a double 20-mil.liner and an appropriate thickness of felt sub-liner to cushion the rock.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 40 **Pit Underlayment Required?** Y

Other Observations / Comments

New cut-sheets (Figure #1) were prepared to provide adequate fill to enlarge the pad.

Floyd Bartlett
Evaluator

11/18/2008
Date / Time

Application for Permit to Drill

Statement of Basis

2/2/2009

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
1161	43047502190000	FILED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1022-2J1T		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NWSE 2 10S 22E S 2370 FSL 1630 FEL GPS Coord (UTM)			636377E	4426239N

Geologic Statement of Basis

Kerr McGee proposes to set 1,900' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,500'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 2. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

12/13/2008
Date / Time

Surface Statement of Basis

The general area is in the southeast end of the Natural Buttes Unit, which contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Ouray, Utah is approximately 25 road miles following Utah State, Uintah County and oilfield development roads to the location.

The proposed pad encompasses the existing pad of the CIGE 10 gas well and will be enlarged in all directions except to the west. The location is near the end of a flat-topped ridge which runs in an east to west direction and ends west of the proposed pad at some steep ledged breaks. Swales exist to the south and east which becomes deep secondary canyons of the White River. The planned reserve pit is on the north side of the location and also extends to near the edge of a seep side-slope of a canyon. Pit corner C is embanked by 0.6 ' of fill but should be stable with the 15-foot wide outer embankment. The existing pad shows no stability problems and the site has no significant concerns, which would prohibit constructing an enlarged pad, drilling and operating the planned wells, and is the only suitable location in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA reviewed the site and had no concerns regarding the proposal.

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Floyd Bartlett
Onsite Evaluator

11/18/2008
Date / Time

Application for Permit to Drill

Statement of Basis

2/2/2009

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A double synthetic liner each with a minimum thickness of 20 mils and an appropriate thickness of felt sub-liner to cushion the liners shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/7/2008

API NO. ASSIGNED: 43047502190000

WELL NAME: NBU 1022-2J1T

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6226

CONTACT: Kevin McIntyre

PROPOSED LOCATION: NWSE 2 100S 220E

Permit Tech Review: ☒

SURFACE: 2370 FSL 1630 FEL

Engineering Review: ☒

BOTTOM: 2370 FSL 1630 FEL

Geology Review: ☒

COUNTY: UINTAH

LATITUDE: 39.97721

LONGITUDE: -109.40293

UTM SURF EASTINGS: 636377.00

NORTHINGS: 4426239.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ST ML 22651

PROPOSED FORMATION: WSMVD

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- ☒ **PLAT**
- ☒ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ☒ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☒ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

LOCATION AND SITING:

- ☐ **R649-2-3.**
 - Unit:** NATURAL BUTTES
- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☒ **Drilling Unit**
 - Board Cause No:** Cause 173-14
 - Effective Date:** 12/2/1999
 - Siting:** 460' fr u bdry & uncomm. tract
- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-2J1T
API Well Number: 43047502190000
Lease Number: ST ML 22651
Surface Owner: STATE
Approval Date: 2/3/2009

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P. , P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14 .

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Cause No. 173-14, commingling the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to spudding the well - contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program - contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well - contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well - contact Dustin Doucet
- Any changes to the approved drilling plan - contact Dustin Doucet

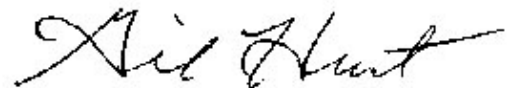
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office
(801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office
(801) 733-0983 home

Reporting Requirements:

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Approved By:

A handwritten signature in black ink, appearing to read "Gil Hunt", with a stylized, flowing script.

Gil Hunt
Associate Director, Oil & Gas

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: KERR-McGEE OIL & GAS ONSHORE, L.P.

Well Name: NBU 1022-2J1T

Api No: 43-047-50219 Lease Type: STATE

Section 02 Township 10S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRILING RIG # BUCKET

SPUDDED:

Date 04/21/09

Time 11:00 AM

How DRY

Drilling will Commence: _____

Reported by LEW WELDON

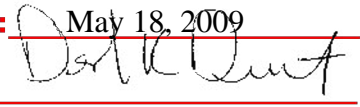
Telephone # (435) 828-7035

Date 04/23/09 Signed CHD

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-2J1T
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2370 FSL 1630 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 2 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047502190000
PHONE NUMBER: 720 929-6587 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 4/30/2009	<input checked="" type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> APD EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input checked="" type="checkbox"/> OTHER	
	OTHER: SET SURFACE CSG	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PROPETRO AIR RIG ON 04/23/2009. DRILLED 12 1/4" SURFACE HOLE TO 2065'. RAN 9 5/8" 36# J-55 SURFACE CSG. CMT W/350 SX PREM CLASS G @15.8 PPG 1.15 YIELD. NO RETURNS 350 PSI LIFT LAND PLUG W/1000 PSI FLOATS HELD. TOP OUT W/100 SX PREM CLASS G @15.8 PPG 1.15 YIELD. 2ND TOP OUT W/150 SX PREM CLASS G @15.8 PPG 1.15 YIELD. 3RD TOP OUT W/125 SX PREM CLASS G @15.8 PPG 1.15 YIELD. GOOD CMT TO SURFACE HOLE STAYED FULL. WORT.		
NAME (PLEASE PRINT) Sheila Upchego	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 5/1/2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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NAME (PLEASE PRINT) Sheila Upchego	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 5/1/2009

Accepted by the
 Utah Division of
 Oil, Gas and Mining
FOR RECORD ONLY
 May 04, 2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/16/2009 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore LP respectfully requests to change the surface casing for this well from 1,900' to 2,075'. Please see the attached drilling diagram for additional details. Thank you.		
NAME (PLEASE PRINT) Danielle Piernot		PHONE NUMBER 720 929-6156
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 5/13/2009		APPROVED BY THE Utah Division of Oil, Gas and Mining Date: May 18, 2009 By: 



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047502190000

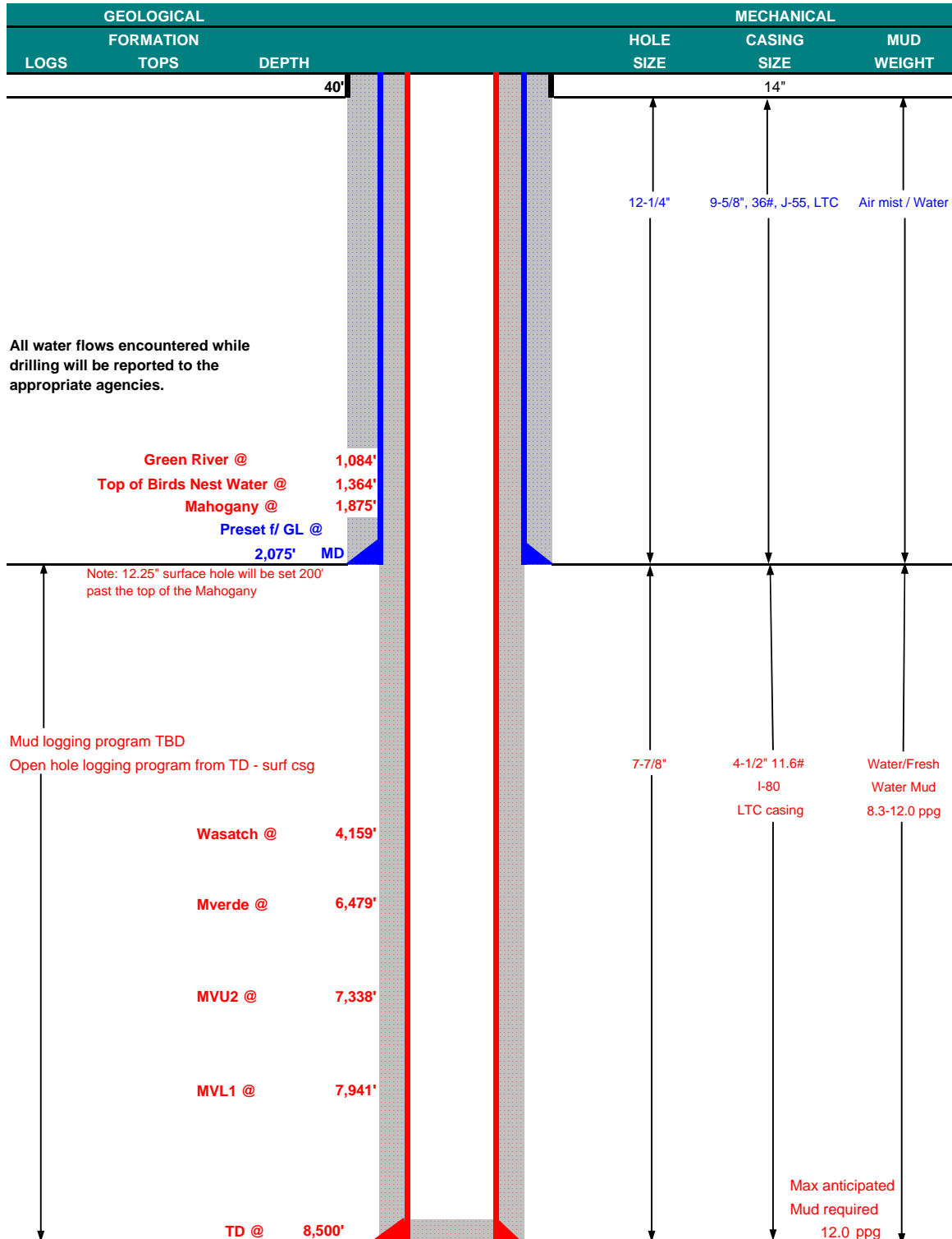
Surface casing shall be cemented from setting depth back to surface.

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: May 18, 2009
By: Dan K. Quist

KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP				DATE	May 13, 2009			
WELL NAME	NBU 1022-2J1T				TD	8,500' MD/TVD			
FIELD	Natural Buttes		COUNTY	Uintah	STATE	Utah	ELEVATION	5,040' GL	KB 5,055'
SURFACE LOCATION	NW/4 SE/4	2,370' FSL	1,630' FEL	Sec 2	T 10S	R 22E	BHL		Straight Hole
	Latitude: 39.977236		Longitude: -109.402806				NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde								
ADDITIONAL INFO	Regulatory Agencies: UDOGM (MINERALS), UDOGM (SURFACE), Tri-County Health Dept.								





KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
SURFACE	9-5/8"	0 to 2,075'	36.00	J-55	LTC	3,520	2,020	453,000
						4.50	2.08	2.74
PRODUCTION	4-1/2"	0 to 9650	11.60	I80	LTC	7,780	6,350	201,000
						2.43	1.05	1.11
	4-1/2"	9650 to 8500	11.60	HCP110	LTC	10,690	8,650	279,000
						-24.63	1.63	3.13

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Frac at Shoe minus Gas Gradient to surface))
- 2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Bouyed Weight of Casing plus Overpull)
MASP 3,429 psi
- 3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.0 ppg) 0.62 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Bouyed Weight of Casing plus Overpull)
MABHP 5,299 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
			+ .25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,650'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 1% Retarder	300	20%	12.00	3.38
	TAIL	4,850'	50/50 Poz/G + 10% salt + 2% gel	1020	20%	14.30	1.31
			+ .1% R-3				

*Substitute caliper hole volume plus 5% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock casing shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip.

Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Take and record inclination surveys every 1000'.

If no PVT is available, visual monitoring of the pits will be utilized.

DRILLING ENGINEER:

John Huycke / Grant Schluender

DATE:

DRILLING SUPERINTENDENT:

NBU 1022-02J1T Drilling Diagram REVISED.xls

DATE:

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 5/26/2009	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
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	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
FINISHED DRILLING FROM 2065' TO 8700' ON 05/25/2009. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. LEAD CMT W/565 SX PREM LITE II @12.7 PPG 1.90 YIELD. TAILED CMT W/1160 SX 50/50 POZ @14.3 PPG 1.31 YIELD. DISPLACE W/134 BBLs TREATED WATER PUMPED DISPLACEMENT DID NOT BUMP PLUG FLOATS HELD. RETURNED 16 BBLs WATER SPACER TO SURFACE OF LAND CSG HANGER CLEAN PITS. RELEASED ENSIGN RIG 145 ON 05/26/2009 AT 0000 HRS.		
<div style="text-align: right;"> Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 28, 2009 </div>		
NAME (PLEASE PRINT) Sheila Upchego	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 5/28/2009	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-2J1T
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2370 FSL 1630 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 2 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047502190000
PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/17/2009	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER	
	OTHER: _____	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 09/17/2009 AT 1:00 P.M. PLEASE REFER TO THE ATTACHED CHRONOLOGICAL WELL HISTORY.		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/21/2009	

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009		Spud Date: 4/23/2009	
Project: UTAH-UINTAH		Site: NBU 1022-2J PAD		Rig Name No: PROPETRO/, ENSIGN 145/145	
Event: DRILLING		Start Date: 4/13/2009		End Date: 5/26/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/23/2009	18:30 - 23:30	5.00	DRLSUR	02	A	P		SPUD W/ AIR RIG 18:30 4/23/2009 DRILL 40'- 540'
	23:30 - 0:00	0.50	DRLSUR	10	A	P		SURVEY 510' = .1 DEGREE AZI= 126.9
4/24/2009	0:00 - 10:30	10.50	DRLSUR	02	A	P		DRILL 540'- 1050'. W/ AIR MIST AND AIR HAMMER.
	10:30 - 11:00	0.50	DRLSUR	10	A	P		MULTISHOT WIRELINE SURVEY 1020'= .4 DEG. 145.4 AZI
	11:00 - 18:00	7.00	DRLSUR	02	A	P		DRILL 1050'- 1350' W/ AIR MIST AND AIR HAMMER
	18:00 - 18:30	0.50	DRLSUR	05	C	P		CLEAN HOLE
	18:30 - 19:00	0.50	DRLSUR	10	A	P		MULTISHOT WIRELINE SURVEY 1320'= .8 DEG 187.3 AZI
	19:00 - 21:00	2.00	DRLSUR	06	A	P		TRIP OUT OF HOLE. TO MOVE TO NBU 1022-2J3S. WAIT FOR RIG 11 AIR RIG TO DRILL.
4/28/2009	22:00 - 0:00	2.00	DRLSUR	06	A	P		MOVE IN AND RIG UP AIR RIG RIH W/ TRICONE BIT @ REPORT TIME
4/29/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 1540' HIT TRONA WATER @ 1420'
	12:00 - 23:30	11.50	DRLSUR	02	A	P		RIG DRILLING AHEAD WITH FLUID NO RETURNS 1840'
	23:30 - 0:00	0.50	DRLSUR	10	A	P		SURVEY .1 DEG 291.8 AZI 2.329 SEP. FACTOR
4/30/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG T/D @ 2065' CONDITION HOLE 1 HR
	12:00 - 12:30	0.50	DRLSUR	10	A	P		RUN SURVEY @ 2000' .3 DEG. 198 AZI 3.585 SEP. FACTOR
	12:30 - 15:30	3.00	DRLSUR	06	C	P		TRIP DP OUT OF HOLE
	15:30 - 18:30	3.00	DRLSUR	12	C	P		RUN 2034' OF 9 5/8 36# J-55 CSG FLOAT COLLAR @ 1988.6 RIG DOWN AIR RIG
	18:30 - 19:30	1.00	DRLSUR	12	E	P		CEMENT SURFACE WITH 350 SKS @ 15.8# 1.15 5.0 GAL/SK NO RETURNS 350 PSI LIFT LAND PLUG W/ 1000 PSI FLOATS HELD
	19:30 - 20:00	0.50	DRLSUR	12	E	P		1ST TOP JOB 100 SKS DOWN BS WOC
	20:00 - 22:00	2.00	DRLSUR	12	E	P		2ND TOP JOB 150 SKS DOWN BS WOC
	22:00 - 23:30	1.50	DRLSUR	12	E	P		3RD TOP JOB 125 SKS DOWN BS GOOD CMT TO SURFACE AND STAYED AT SURFACE
	23:30 - 23:30	0.00	DRLSUR					NO VISIBLE LEAKS PIT 20% FULL WORT
5/19/2009	13:30 - 16:00	2.50	DRLPRO	01	C	P		PREP TO SKID RIG
	16:00 - 19:30	3.50	DRLPRO	01	C	P		INSTALL NIGHTCAP ON WELLHEAD, INITIAL NIGHTCAP WOULDNOT INSTALL,CALLED OUT REPLACEMENT FROM CAMERON, INSTALLED WITH NO PROBLEM
	19:30 - 21:30	2.00	DRLPRO	01	C	P		WALK RIG, LEVEL RIG
	21:30 - 23:00	1.50	DRLPRO	14	A	P		NU BOP AND FLARE LINES
	23:00 - 0:00	1.00	DRLPRO	01	B	P		SET CAT WALK
5/20/2009	0:00 - 4:00	4.00	DRLPRO	15	A	P		TEST BOP- 250 LOW, 5000 HIGH
	4:00 - 6:30	2.50	DRLPRO	06	A	P		CHANGE OUT BAILS AND SAVOR SUB
	6:30 - 7:00	0.50	DRLPRO	07	A	P		LUBRICATE RIG
	7:00 - 8:00	1.00	DRLPRO	06	A	P		PU BHA
	8:00 - 9:30	1.50	DRLPRO	06	A	P		TIH, TAG CMT AT 1890
	9:30 - 11:30	2.00	DRLPRO	02	D	P		DRILL OUT SHOE TRACK
	11:30 - 0:00	12.50	DRLPRO	02	D	P		DRILL & SLIDE TO 2930 ,1040', 89 FPH , 10-15 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @64 SPM-249 GPM, #2 PUMP @ 65 SPM-253 GPM, SPP ON/OFF BOTTOM-1443/1395, TQE ON/OFF BOTTOM-8/4, DRAG UP,DWN,ROT-97/86/88

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US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009		Spud Date: 4/23/2009	
Project: UTAH-UINTAH		Site: NBU 1022-2J PAD			Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING		Start Date: 4/13/2009		End Date: 5/26/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/21/2009	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL 2930 TO 4118 ,1188',103' FPH , 10-15 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM -1716/1679, TQE ON/OFF BOTTOM-9/6, DRAG UP,DWN,ROT-140/130/138, 4500 UNITS BACKGROUND GAS IN THE WASATCH W/ 5 -10' FLARE INTERMITTENT.
	11:30 - 12:00	0.50	DRLPRO	07	A	P		LUBRICATE RIG
	12:00 - 0:00	12.00	DRLPRO	02	D	P		DRILL 4118 TO 5434',2504', 106' FPH , 10-15 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM -1645/1620, TQE ON/OFF BOTTOM-10/6, DRAG UP,DWN,ROT-145/132/138
5/22/2009	0:00 - 12:00	12.00	DRLPRO	02	D	P		DRILL 5434' TO 6077',643, 54' FPH , 10-18 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM -1990/1965, TQE ON/OFF BOTTOM-11/6, DRAG UP,DWN,ROT-145/135/141
	12:00 - 12:30	0.50	DRLPRO	07	A	P		LUBRICATE RIG
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DRILL 6077,'TO 6620, 1186', 51' FPH , 10-18 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM -2024/1985, TQE ON/OFF BOTTOM-11/6, DRAG UP,DWN,ROT-145/130/142
5/23/2009	0:00 - 12:30	12.50	DRLPRO	02	D	P		DRILL 6620 TO 7203, 583', 47' FPH , 10-18 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM-2427/2395, TQE ON/OFF BOTTOM-11/6, DRAG UP,DWN,ROT-172/116/166
	12:30 - 13:00	0.50	DRLPRO	07	A	P		LUBRICATE RIG
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL 7203 TO 7680, '477 ' 49 FPH , 10-20 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM -2444/2312, TQE ON/OFF BOTTOM-10/7, DRAG UP,DWN,ROT-170/150/157
5/24/2009	0:00 - 5:30	5.50	DRLPRO	02	D	P		DRILL 7680 TO 7918, '238 ' 47 FPH , 10-20 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @66 SPM-253 GPM, #2 PUMP @ 66 SPM-253 GPM, SPP ON/OFF BOTTOM -2407/2380, TQE ON/OFF BOTTOM-5/4, DRAG UP,DWN,ROT-170/150/157
	5:30 - 6:30	1.00	DRLPRO	05	C	P		CIRC HOLE CLEAN, PUMP PILL, PREP FOR BIT TRIP
	6:30 - 10:00	3.50	DRLPRO	06	A	P		TRIP OUT FOR BIT
	10:00 - 10:30	0.50	DRLPRO	06	A	P		PULL ROTATING HEAD, LD 2 JTS DP
	10:30 - 11:00	0.50	DRLPRO	06	A	P		POOH W/ HWT DP
	11:00 - 13:00	2.00	DRLPRO	06	A	P		DIR WORK, BREAK BIT, LD MM, MU BIT, INSTALL MM
	13:00 - 13:30	0.50	DRLPRO	06	A	P		TIH W/ HWT DP
	13:30 - 17:00	3.50	DRLPRO	06	A	P		TIH, PU 2 JTS, INSTAL ROTATING HEAD, TIH
	17:00 - 19:00	2.00	DRLPRO	06	A	P		TIH, WASH THRU BRIDGES 6215-6230, 7317-7352, 7552-7628, TIH

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US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009		Spud Date: 4/23/2009	
Project: UTAH-UINTAH		Site: NBU 1022-2J PAD			Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING		Start Date: 4/13/2009		End Date: 5/26/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	19:00 - 0:00	5.00	DRLPRO	02	D	P		DRILL 7918 TO 8129,211 ',47' FPH , 10-20 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @56 SPM-215 GPM, #2 PUMP @ 55 SPM-210 GPM, SPP ON/OFF BOTTOM -2577/2540, TQE ON/OFF BOTTOM-11/7, DRAG UP,DWN,ROT-170/150/164
5/25/2009	0:00 - 9:00	9.00	DRLPRO	02	D	P		DRILL 8129 TO 8700, TD,571 ',63' FPH , 10-20 WOB, ROTATARY RPM-40, MOTOR RPM-80, #1 PUMP @56 SPM-215 GPM, #2 PUMP @ 55 SPM-210 GPM, SPP ON/OFF BOTTOM -2577/2540, TQE ON/OFF BOTTOM-11/7, DRAG UP,DWN,ROT-175/165/178, MW-12.7, VIS-40
	9:00 - 11:00	2.00	DRLPRO	05	F	P		PUMP SWEEPS AROUND, CIRC HOLE 2 COMPLETE CIRCULATIONS, PUMP PILL
	11:00 - 15:00	4.00	DRLPRO	06	E	P		WIPER TRIP TO 5000
	15:00 - 18:00	3.00	DRLPRO	05	F	P		PUMP SWEEP, CIRC HOLE, MW-12.7, VIS-41
	18:00 - 0:00	6.00	DRLPRO	06	A	P		POOH W/ DP, LD BHA
5/26/2009	0:00 - 1:30	1.50	DRLPRO	06	A	P		LD DIR TOOLS
	1:30 - 6:00	4.50	DRLPRO	11	D	P		RU LOGGERS, RUN OPEN HOLE LOGS, BRIDGED OUT AT 6400, LOGGED FROM 6400 UP.
	6:00 - 7:00	1.00	DRLPRO	12	A	P		RU CASERS, HOLD SAFETY MEETING
	7:00 - 9:30	2.50	DRLPRO	12	C	P		RUN 4 1/2 CSG
	9:30 - 10:30	1.00	DRLPRO	08	A	P		CO BALES
	10:30 - 11:00	0.50	DRLPRO	12	C	P		RUN 4 1/2 CSG
	11:00 - 12:00	1.00	DRLPRO	08	A	P		CO ROTATING HEAD
	12:00 - 18:00	6.00	DRLPRO	12	A	P		RUN 4 1/2 CSG, 206 JTS, I-80, 11.6#, SHOE AT 8679.22
	18:00 - 20:00	2.00	DRLPRO	12	E	P		RD CASERS, RU CEMETERS, HOLD SAFETY MEETING
	20:00 - 22:00	2.00	DRLPRO	12	E	P		PUMP 40 BBLS WATER SPACER, PUMP 191 BBLS, 565 SX, 12.7, 1.9 YIELD LEAD, 270 BBLS, 1160 SX, 14.3, 1.31 YIELD TAIL, DISPLACED W/ 134 BBLS TREATED WATER, PUMPED
								DISPLACEMENT, DID NOT BUMP PLUG, FLOAT HELD, RETURNED 16 BBLS WATER SPACER TO SURFACE, RD CEMENTERS
	22:00 - 0:00	2.00	DRLPRO	01	E	P		LAND CSG HANGER, CLEAN PITS, RELEASE RIG AT 00:00

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US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009	Spud Date: 4/23/2009
Project: UTAH-UINTAH	Site: NBU 1022-2J PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/4/2009	End Date: 9/15/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/4/2009	7:00 - 12:00	5.00	COMP	37	B	P		OPEN WELL 0#. PU 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF F/ 8566'-72', 4 SPF, 24 HOLES. 8438'-42', 4 SPF, 16 HOLES. 8402'-04', 4 SPF, 8 HOLES. POOH. SWI, SDFWE. READY T/ FRAC 09/08.
9/8/2009	8:00 - 18:00	10.00	COMP	36	B	P		OPEN WELL 1765# STG 1) BEG PUMP, BRK @ 2966# @ 5.3 BPM. SD ISIP 2350# FG .71. BEG FRAC, PUMP 38,570# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SD ISIP 2700#, FG .75. SWI. X-OVER T/ BLUE. STG 2) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 8308' P/U PERF F/ 8274'-78', 3 SPF, 12 HOLES. 8172'-76', 3 SPF, 12 HOLES. 8122'-24', 4 SPF, 8 HOLES. 8098'-00', 4 SPF, 8 HOLES. POOH. 11:51 OPEN WELL 2540#. BEG PUMP, BRK @ 3849# @ 5.3 BPM. SD ISIP 2600# FG .75. BEG FRAC, PUMP 55,853# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SD ISIP 2750# FG .77. SWI. 3:22 X-OVER BLUE. STG 3) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN. 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8032' P/U PERF F/ 8008'-12', 4 SPF, 16 HOLES. 7938'-42', 4 SPF, 16 HOLES. 7916'-18', 4 SPF, 8 HOLES. POOH. 2:54 OPEN WELL 2370#. BEG PUMP, BRK @ 3341# @ 6.4 BPM. SD ISIP 2500#, FG .74. EST INJT RT @ 51.5 BPM @ 4200# = 100% PERF'S OPEN. PUMP 32,246# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SD ISIP 2700#, FG .77. SWI. X-OVER T/ BLUE. STG 4) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7818' P/U PERF F/ 7792'-98', 4 SPF, 24 HOLES. 7722'-26', 4 SPF, 16 HOLES. POOH.

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US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009	Spud Date: 4/23/2009
Project: UTAH-UINTAH	Site: NBU 1022-2J PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/4/2009	End Date: 9/15/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/9/2009	8:00 - 18:00	10.00	COMP	36	B	P		<p>STG 4) OPEN WELL 2270#. BEG PUMP, BRK @ 4294# @ 6.4 BPM. SD ISIP 2500# FG .75. BEG FRAC. EST INJT RT @ 51.5 @ 4500# = 100% PERF'S OPEN. PUMP 18,056# 30/50 WHITE & TAIL IN W/ 20/40 TLC. SD ISIP 2700# FG .78. SWI. FRAC CREW X- OVER T/ BLUE WELL.</p> <p>STG 5) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90& 120 DEG PHASING. RIH SET CBP @ 7606' P/U PERF F/ 7572'-76', 3 SPF, 12 HOLES. 7528'-30', 3 SPF, 6 HOLES. 7472'-74', 4 SPF, 8 HOLES. 7408'-12', 4 SPF, 16 HOLES. POOH.</p> <p>11:41AM OPEN WELL 1450#. BEG PUMP, BRK @ 3632# @ 6.4 BPM. SD ISIP 2100# FG .71. BEG FRAC, EST INJT RT @ 51.5 BPM @ 3800# = 100% PERF'S OPEN. PUMP 61,542# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SD ISIP 2250# FG .73. SWI. FRAC CREW X-OVER T/ BLUE.</p> <p>STG 6) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7334' P/U PERF F/ 7298'-04', 4 SPF, 24 HOLES. 7264'-66', 4 SPF, 8 HOLES. 7248'-50', 4 SPF, 8 HOLES. POOH.</p> <p>2:30 PM OPEN WELL 1847#. BEG PUMP, BRK @ 2906# @ 6.3 BPM. SD ISIP 1950# FG .70. BEG FRAC, EST INJT RT @ 51.5 BPM @ 4150# =100% PERF'S OPEN. PUMP 40,530# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SD ISIP 2550# FG .78. SWI. FRAC CREW X-OVER T/ BLUE.</p> <p>STG 7)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7128' P/U PERF F/ 7094'-98', 4 SPF, 16 HOLES. 7033'-35', 4 SPF, 8 HOLES. 6996'-98', 4 SPF, 8 HOLES. 6963'-65', 4 SPF, 8 HOLES. POOH. SWI, SDFN. READY T/ FRAC IN THE :AM.</p>

RECEIVED September 21, 2009

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009	Spud Date: 4/23/2009
Project: UTAH-UINTAH	Site: NBU 1022-2J PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/4/2009	End Date: 9/15/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/10/2009	8:00 - 18:00	10.00	COMP	36	B	P		<p>STG 7) OPEN WELL 1300#. BEG PUMP, BRK @ 2690# @ 6.4 BPM. SD ISIP 1750# FG .68. BEG FRAC, EST INJT RT @ 51.1 BPM @ 4250# = 82% PERF'S OPEN. PUMP 39,628# 30/50 WHITE & 5,000# 20/40 TLC. SD ISIP 2450# FG .78. SWI. FRAC CREW X-OVER T/ BLUE WELL.</p> <p>STG 8)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 6898' P/U PERF F/ 6874'-78', 3 SPF, 12 HOLES. 6834'-38', 3 SPF, 12 HOLES. 6752'-54', 4 SPF, 8 HOLES. 6680'-82', 4 SPF, 8 HOLES. POOH.</p> <p>10:45 OPEN WELL 1780#. BEG PUMP, BRK @ 2668# @ 5.3 BPM. SD ISIP 1850# FG .70. BEG FRAC, EST INJT RT @ 56 BPM @ 3900# = 100% PERF'S OPEN. PUMP 37,281# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SD ISIP 2550# FG .81. SWI. FRAC CREW X-OVER T/ BLUE WELL.</p> <p>STG 9) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 6626' P/U PERF F/ 6592'-96', 3 SPF, 12 HOLES. 6546'-50', 3 SPF, 12 HOLES. 6513'-16', 3 SPF, 9 HOLES. 6484'-86', 3 SPF, 6 HOLES. POOH.</p> <p>2:15 OPEN WELL 1315#. BEG PUMP, BRK @ 2716# @ 6.3 BPM. SD ISIP 1800# FG .71. BEG FRAC, EST INJT RT @ 54 BPM @ 3700# = 100% PERF'S OPEN. PUMPED 61,442# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. SCREEN OUT ON FLUSH. LACKED 53 BBL T/ FINISH FLUSH. LEFT 3800# OF 20/40 TLC IN PIPE. OPEN WELL T/ PIT. FLOW BACK FOR 20 MIN. SWI. OPEN WELL REFLUSH WELL. SWI TURN WELL OVER T/ WL.</p> <p>PU 4 1/2 8K HAL CBP. RIH SET CBP @ 6434'. POOH.</p> <p>RDMO SCHLUMBERGER WL & FRAC CREW. JSA WELL CONTROL</p>
9/14/2009	7:00 - 7:30	0.50		48				

RECEIVED September 21, 2009

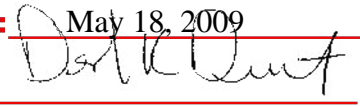
US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2J1T (YELLOW)		Spud Conductor: 4/21/2009	Spud Date: 4/23/2009
Project: UTAH-UINTAH	Site: NBU 1022-2J PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/4/2009	End Date: 9/15/2009	
Active Datum: RKB @5,053.01ft (above Mean Sea Level)		UWI: 0/10/S/22/E/2/0/NWSE/6/PM/S/2,370.00/E/0/1,630.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:30 -		COMP	30		P		MIRU SPOT EQUIP RU RIG 0 PSI ON WELL ND FRAC VALVES NU BOPS RU FLOOR & TUBING EQUIP PU 3-7/8" HURRICANE MILL POBS PKG RIH W/ 2-3/8" J-55 TUB TAG KILL PLUG PU PWR SWIVEL EST CIRC W/ RIG PMP PLUG #1 DRILL THRU HALLI 8K CBP IN 6 MIN W/ 25# INCREASE PLUG #2 CONTINUE TO RIH TAG SAND @ 6591' {35' FILL} C/O & DRILL THRU HALLI 8K CBP @ 6626' IN 7 MIN W/ 25# INCREASE. PLUG #3 CONTINUE TO RIH TAG SAND @ 6868' {30' FILL} C/O & DRILL THRU HALLI 8K CBP @ 6898' IN 6 MIN W/ 60# INCREASE. PLUG #4 CONTINUE TO RIH TAG SAND @ 7098 {30' FILL} C/O & DRILL THRU HALLI 8K CBP @7128' IN 7 MIN W/ 75 # INCREASE pull 10 STANDS EOT 6521' CIRCULATE CLEAN F/ 20 MIN SWIFN JSA DRILL PLUGS SIWP= 625 PSI OPEN WELL TO PIT RIH TO PLUG #5 PLUG #5 TAG SAND @7304' {30' FILL} C/O & DRILL THRU HALLI 8k CBP @ 7334' IN 5 MIN W/ 50# INCREASE PLUG #6 CONTINUE TO RIH TAG SAND @ 7576' {30' FILL} C/O & DRILL THRU HALLI 8K CBP @ 7606' IN 7 MIN W/ 100# INCREASE. PLUG #7 CONTINUE TORIH TAG SAND @7798' {30' FILL} C/O & DRILL THRU HALLI 8K CBP @ 7818' IN 6 MIN W/ 50# INCREASE PLUG #8 CONTINUE TO RIH TAG SAND @ 8007' {25' FILL} C/O & DRILL THRU HALLI 8K CBP @ 8032' IN 6 MIN W/50# INCREASE PLUG #9 CONTINUE TO RIH TAG SAND @ 8278' { 30' FILL} C/O & DRILL THRU HALLI 8K CBP @ 8278' IN 5 MIN W/0 # INCREASE CONTINUE TO RIH TAG SAND @ 8548' {75' FILL} C/O TO PBTD @8632' WELL FLOWING @ 625# CIRC CLEAN RD PWR SWVL POOH LD 18 JNTS LAND TUB ON HANGER W/ 256 JNTS OF 2-3/8" J-55 TUBING IN WELL EOT @ 8083.52 ND BOPS NU WELL HEAD PUMP OFF POBS @ 2450# SHUT WELL IN F/ 30 MIN ALLOWING BIT TO FALL RD RIG MOVE TO 2J35S BLUE KB= 13.00 HNGR= 1.00 256 JNTS 2-3/8" J-55= 8067.32 POBS= 2.20 EOT @=8083.52 WELL TURNED TO SALE @ 1300 HR ON 9/17/09 - FTP 2200#, CP 2250#, 1800 MCFD, 27 BWPD, 16/64 CK
9/15/2009	7:00 - 7:15	0.25		48				
	7:15 - 17:00	9.75	COMP	30		P		
9/16/2009	13:00 -		PROD	50				

RECEIVED September 21, 2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-2J1T
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2370 FSL 1630 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 2 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047502190000
PHONE NUMBER: 720 929-6587 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/16/2009 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore LP respectfully requests to change the surface casing for this well from 1,900' to 2,075'. Please see the attached drilling diagram for additional details. Thank you.		
NAME (PLEASE PRINT) Danielle Piernot		PHONE NUMBER 720 929-6156
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 5/13/2009		DATE: May 18, 2009 By: 

RECEIVED May 13, 2009



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047502190000

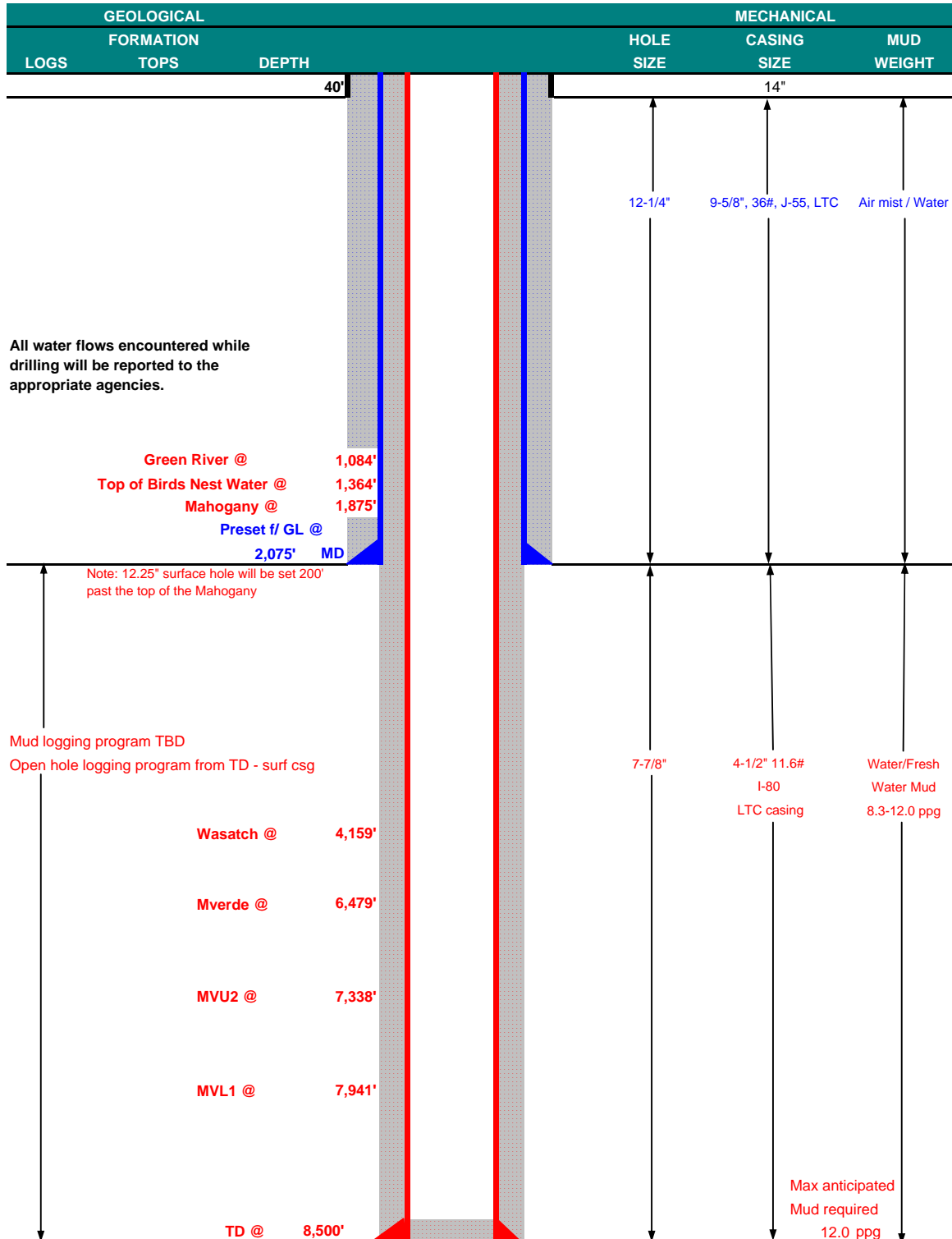
Surface casing shall be cemented from setting depth back to surface.

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: May 18, 2009
By: Dan K. Quist

KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP				DATE	May 13, 2009			
WELL NAME	NBU 1022-2J1T				TD	8,500' MD/TVD			
FIELD	Natural Buttes		COUNTY	Uintah	STATE	Utah		ELEVATION	5,040' GL KB 5,055'
SURFACE LOCATION	NW/4 SE/4	2,370' FSL	1,630' FEL	Sec 2	T 10S	R 22E			BHL Straight Hole
	Latitude: 39.977236		Longitude: -109.402806				NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde								
ADDITIONAL INFO	Regulatory Agencies: UDOGM (MINERALS), UDOGM (SURFACE), Tri-County Health Dept.								





KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
SURFACE	9-5/8"	0 to 2,075'	36.00	J-55	LTC	3,520	2,020	453,000
						4.50	2.08	2.74
PRODUCTION	4-1/2"	0 to 9650	11.60	I80	LTC	7,780	6,350	201,000
						2.43	1.05	1.11
	4-1/2"	9650 to 8500	11.60	HCP110	LTC	10,690	8,650	279,000
						-24.63	1.63	3.13

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Frac at Shoe minus Gas Gradient to surface))
- 2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Bouyed Weight of Casing plus Overpull)
MASP 3,429 psi
- 3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.0 ppg) 0.62 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Bouyed Weight of Casing plus Overpull)
MABHP 5,299 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
			+ .25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,650'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 1% Retarder	300	20%	12.00	3.38
	TAIL	4,850'	50/50 Poz/G + 10% salt + 2% gel	1020	20%	14.30	1.31
			+ .1% R-3				

*Substitute caliper hole volume plus 5% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock casing shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip.

Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Take and record inclination surveys every 1000'.

If no PVT is available, visual monitoring of the pits will be utilized.

DRILLING ENGINEER:

John Huycke / Grant Schluender

DATE:

DRILLING SUPERINTENDENT:

NBU 1022-02J1T Drilling Diagram REVISED.xls

DATE:

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-2J1T
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2370 FSL 1630 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 02 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047502190000
PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/3/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input checked="" type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator request the authorization to temporarily abandon the subject well location. The operator proposes to TA the subject well to drill the NBU 1022-2J Pad, which consists of the following wells: NBU 1022-2G4BS, NBU 1022-2G4CS, NBU 1022-2H4CS, NBU 1022-2I1BS, NBU 1022-2J4BS & NBU 1022-2O1CS.		
Approved by the Utah Division of Oil, Gas and Mining Date: 11/23/2011 By: <u><i>Derek Duff</i></u>		
NAME (PLEASE PRINT) Gina Becker		PHONE NUMBER 720 929-6086
SIGNATURE N/A		TITLE Regulatory Analyst II
DATE 11/3/2011		

Well Name: **NBU 1022-2J1T**
 Surface Location: NWSE Sec. 2, T10S, R22E
 Uintah County, UT

11/2/2011

API: 43043750219 LEASE#: ML-22651

ELEVATIONS: 5040' GL 5052' KB

TOTAL DEPTH: 8700' PBTD: 8623'

SURFACE CASING: 9 5/8", 36# J-55 @ 2049'

PRODUCTION CASING: 4 1/2", 11.6# I-80 @ 8679'
 TOC @ ~788' per CBL

PERFORATIONS: MESAVERDE 6484' - 8572'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft./ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
9.625" 36# J-55	8.765	2020	3520	3.247	0.434	0.0773
Annular Capacities						
2.375" tbg. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01
4.5" csg X 9 5/8" 36# csg				2.227	0.2977	0.053
4.5" csg X 7.875 borehole				1.704	0.2278	0.0406
9.625" csg X 12 1/4" borehole				2.3428	0.3132	0.0558

GEOLOGICAL TOPS:

4200' Wasatch
 6424' Mesaverde

Tech. Pub. #92 Base of USDW's

USDW Elevation ~1600' MSL
 USDW Depth ~3452' KBE

Recommended future action for disposition of well bore:

Temporarily abandon the wellbore during the drilling and completion operations of the **NBU 1022-2J** pad wells. Return to production as soon as possible once completions are done.

NBU 1022-2J1T TEMPORARY ABANDONMENT PROCEDURE

GENERAL

- H₂S MAY BE PRESENT. CHECK FOR H₂S AND TAKE APPROPRIATE PRECAUTIONS.
- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, YIELD 1.145 CUFT./SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESPONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME. WHEN SQUEEZING, INCLUDE 10% EXCESS PER 1000' OF DEPTH.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDES. PREMIX 5 GALLONS PER 100 BBLS FLUID.
- NOTIFY UDOGM 24 HOURS BEFORE MOVING ON LOCATION.

PROCEDURE

Note: An estimated 24 sx Class "G" cement needed for procedure

1. MIRU. KILL WELL AS NEEDED. ND WH, NU AND TEST BOPE.
2. RU WIRELINE. ENSURE WELLBORE IS CLEAN. A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE.
3. **PLUG #1, ISOLATE MV PERFORATIONS (6484' – 8572'):** RIH W/ 4 ½" CBP. SET @ ~6430'. RELEASE CBP, PUH 10', BRK CIRC W/ FRESH WATER. PRESSURE TEST CASING TO 500 PSI. INFORM ENGINEERING IF IT DOESN'T TEST. DISPLACE A MINIMUM OF **8 SX / 1.6 BBL / 8.7 CUFT**. ON TOP OF PLUG. PUH ABOVE TOC (~6330'). REVERSE CIRCULATE W/ TREATED FRESH WATER.
4. **PLUG #2, PROTECT TOP OF WASATCH (4200'):** PUH TO ~4300'. BRK CIRC W/ FRESH WATER. DISPLACE A MINIMUM OF **16 SX / 3.1 BBL / 17.4 CUFT** AND BALANCE PLUG W/ TOC @ ~4100' (200' COVERAGE). PUH ABOVE TOC. REVERSE CIRCULATE W/ TREATED FRESH WATER.
5. LOWER WELLHEAD TO GROUND LEVEL TO ACCOMMODATE DRILLING OPS AND INSTALL MARKER PER UDOGM GUIDELINES.
6. RDMO. TURN OVER TO DRILLING OPERATIONS.

ALM 11/2/2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750219	NBU 1022-2J1T		NWSE	2	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	4/21/2009			<u>4/29/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSTMVD</u> SPUD WELL LOCATION ON 04/21/2009 AT 1100 HRS.							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750216	NBU 1022-202S		SWSE	2	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	4/21/2009			<u>4/29/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL LOCATION ON 04/21/2009 AT 1500 HRS. <u>BHL= SWSE</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA UPCHEGO

Name (Please Print)

Signature

REGULATORY ANALYST

Title

4/24/2009

Date

RECEIVED

APR 27 2009

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ST ML-22651
2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078		7. UNIT or CA AGREEMENT NAME: UNIT #891008900A
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2370'FSL, 1630'FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 2 10S 22E		8. WELL NAME and NUMBER: NBU 1022-2J1T
PHONE NUMBER: (435) 781-7024		9. API NUMBER: 4304750219
		10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES
		COUNTY: UINTAH
		STATE: UTAH


11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: WELL SPUD
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX.

SPUD WELL LOCATION ON 04/21/2009 AT 1100 HRS.

NAME (PLEASE PRINT) SHEILA UPCHEGO	TITLE REGULATORY ANALYST
SIGNATURE 	DATE 4/24/2009

(This space for State use only)

RECEIVED

APR 30 2009